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# Capital Markets and Commercial Real Estate

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Greer Advisors

March 18, 2009

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**Greer Advisors**

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# Goals of Presentation

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- Fundamentals
- Capital Markets
- Implications for Real Estate
- Real Estate Trends
- Conclusions
- Forecast
- Signs to Look for

# Fundamentals

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## Supply / Demand

- Supply Growth – Development has Stopped
- “Big Picture” ties to Gross Domestic Product
  - Office – FIRE Employment, Portion of Service Employment
  - Retail – Household Formations, Income Growth
  - Industrial – Manufacturing vs Distribution
  - Multifamily – Households
  - Hotel – Corporate Travel – Office Employment
- Jobs & Retail Sales Drive Supply & Demand!!!

## Financing – Currently Most Important Fundamental

# Financing Fundamentals

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Capital Markets Drive Financing  
CMBS / REITs are Benchmarks

Capital Markets Have Dried Up

Banks are in Middle of Credit Crunch

Few Banks are “In the Game” of Lending

Rates Across the Spectrum Have Risen

Equity, Mezzanine, Debt

Deleveraging – Lower LTV / Higher DSC

# What is a CMBS?

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## Commercial Mortgage Backed Security

- Type of pass-through security
- Commercial Mortgages are securitized into a pool. Rights to the revenue from the mortgages are divided into many smaller pieces (tranches, strips, slices), each with differing priorities. Proceeds are distributed to investors based on the priority of their tranche.
- During the last few years, has accounted for slightly less than 40% of all commercial real estate lending.

# What is a CDO?

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## Collateralized Debt Obligation

- Type of pass-through security
- CDOs are securitized debt pools, similar to CMBS, but debts can be CMBS/CDO paper, car/boat/plane loans, credit cards, or virtually any type of debt obligation. Rights to the revenue from the obligations are divided into many smaller pieces (tranches, strips, slices), each with differing priorities. Proceeds are distributed to investors based on the priority of their tranche.
- Tough to gauge accurately, but most experts believe these have accounted for 5-10% of all commercial real estate lending the past few years.

# What is REIT?

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## Real Estate Investment Trust

- Type of Pass-through Security
- Effectively a corporation
- 95% of income passed through to shareholders.  
No “corporate” tax. All earnings single-taxed at shareholder level.
- Current “Industry” Issues:  
Definition of Assets, Max Debt Load, Yield

# What is CDS?

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## Credit Default Swap

- A bilateral contract where two parties agree to trade the credit risk of a third-party. A protection buyer pays a periodic fee to a protection seller in exchange for a contingent payment by the seller upon a default or failure to pay. Once triggered, the seller either takes delivery of the collateral (eg bond, note) or pays the buyer the difference between the par value and recovery value of the bond (cash settlement).
- They resemble an insurance policy, as they can be used by debt owners to hedge against credit events.



# Evolution of CDS

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- Simple CDS = “Full Coverage”
  - Buyer is Party to Credit Instrument
  - Seller Provides “Full” Coverage
  - Seller Pays (makes up) Shortfall or
  - Seller Buys Credit Instrument from Buyer
  - Buyer is “Made Whole”
- Buyer is Not a Part to Credit Facility, merely a speculator
- Sellers Provide Partial Coverage (ceiling) or Part of Credit
- Sellers Provide Incremental Coverage
  - Goal is to provide “Partial” Credit Enhancement
  - Ratings Are Moved (eg “BB” to “A” rating)
- CDS – Complex Credit
  - CMBS (vertical [multi-tranche buyer] or horizontal)
  - Multiple facilities
  - REITs added

# CDS – Credit Enhancement – Market Change

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## ■ DEBT ISSUANCE

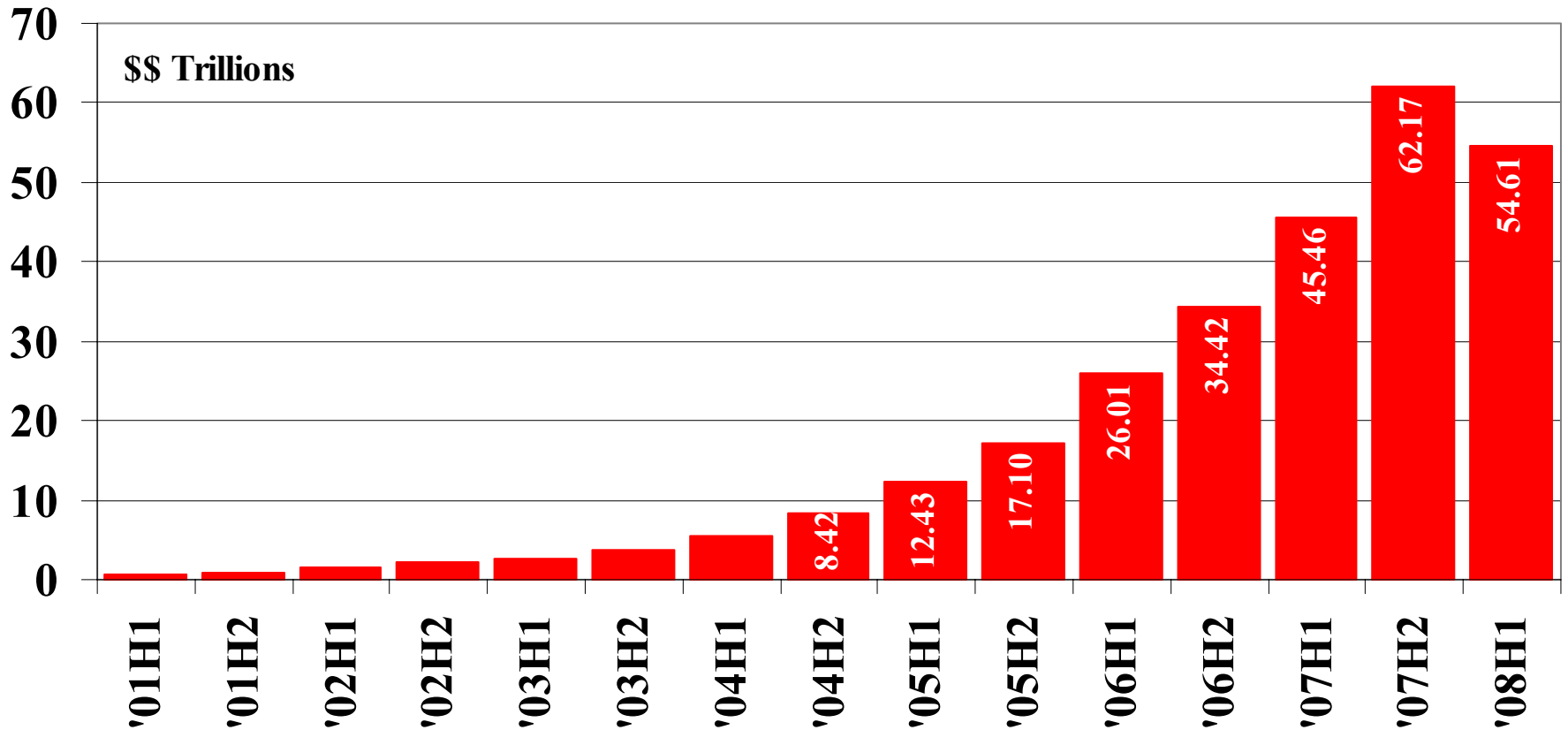
- Debt Issued \$1B
- SRA Rates Debt
- Estimated Loss = \$10MM = “B” Rating
- SRA says \$1MM = AA
- \$9MM CDS bought
- Debt “credit enhanced” from “B” to “AA”

## ■ DEBT RE-RATED

- Existing Debt 6 mo’s later
- SRA Re-Rates Debt
- Estimated Loss now \$20MM = “unrated” security
- SRA says \$1MM = AA
- CDS provided \$9MM coverage, yields \$11MM expected loss
- Credit Enhancement not enough to yield rated security

Note: Above is Hypothetical Example

# Credit Default Swaps

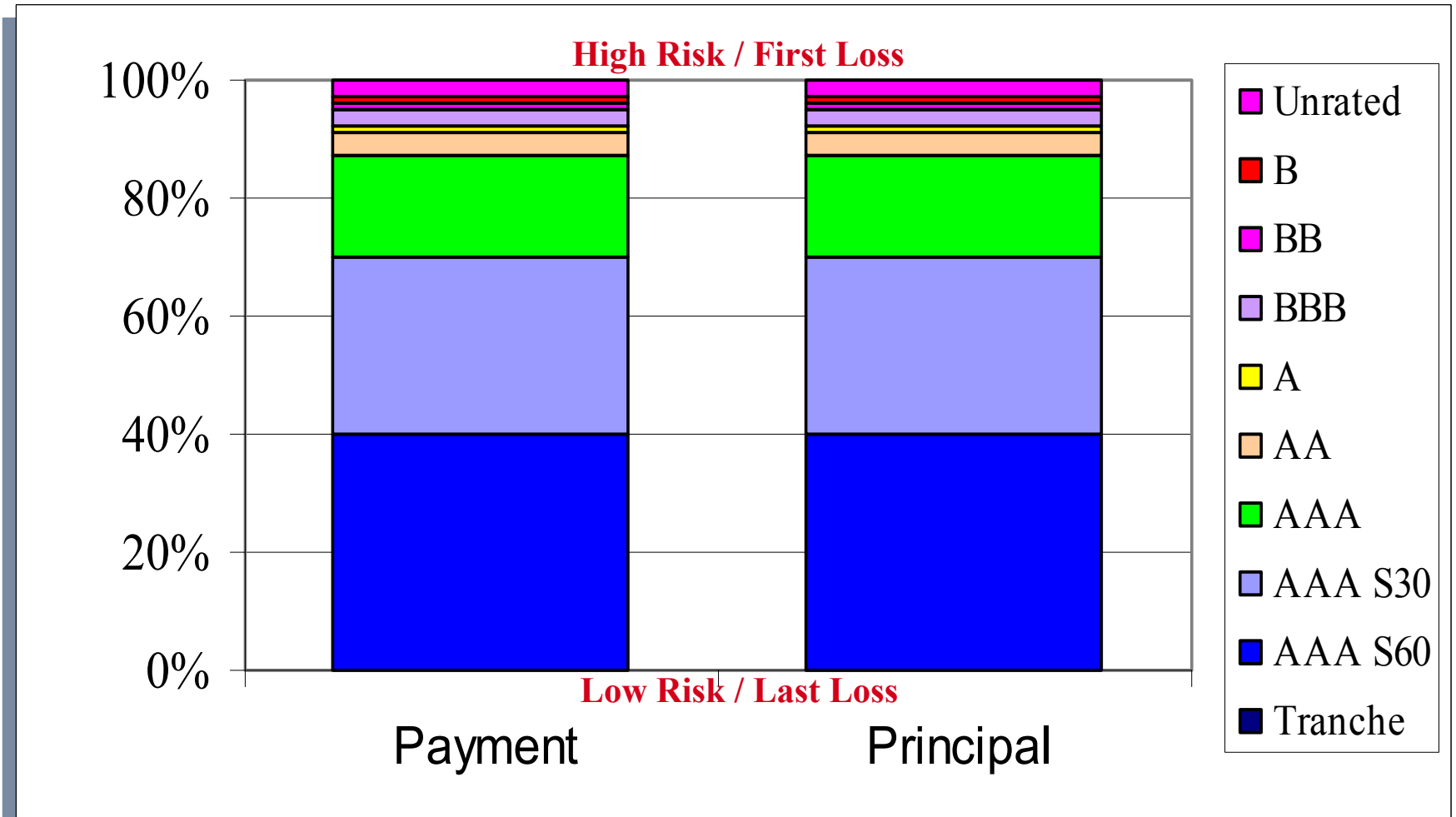


Source: ISDA (Voluntary Survey), Greer Advisors

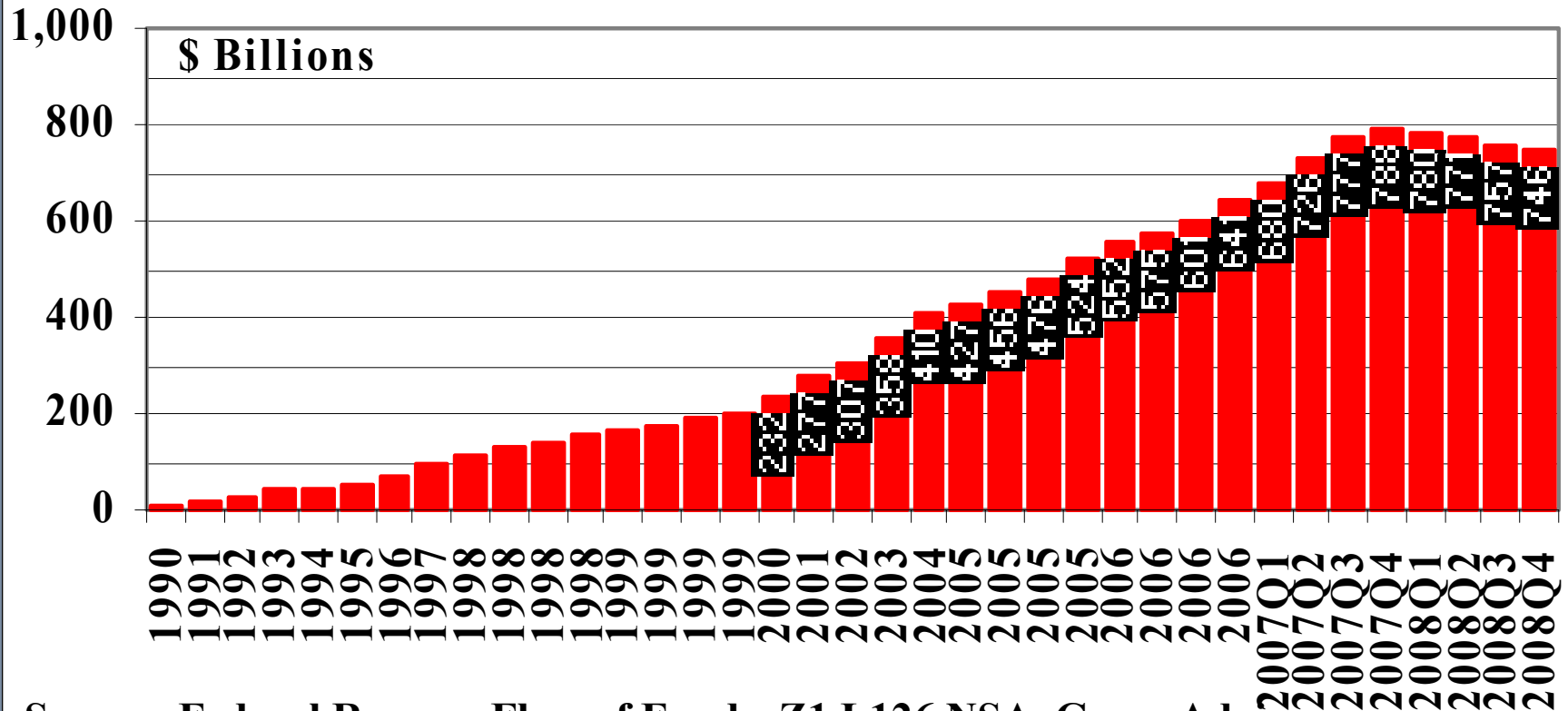
# Example of a “Typical” CMBS

		No. Loans	250		
		Avg. Loan Size	\$10,000,000		
		Total Loan Amt.	\$2,500,000,000		
		Index Name	10-Year Treasury		
		Index Rate	4.000%		
		Avg. Margin	1.750%		
		Avg Yield	5.750%		
<b>THEN</b>	<b>NOW</b>			<b>THEN</b>	<b>NOW</b>
2007.01	2009.0316	Rating (10Y)	Subordination	2007.01	2009.0316
0.0020	0.0635	AAA S60	60.0%	4.200%	10.346%
0.0025	0.0793	AAA S30	30.0%	4.250%	11.933%
0.0030	0.2084	AAA	12.5%	4.300%	24.836%
0.0040	0.3286	AA	9.0%	4.400%	36.859%
0.0100	0.4168	A	8.0%	5.000%	45.683%
0.0175	0.5560	BBB	5.0%	5.750%	59.600%
0.0250	0.5816	BB	4.0%	6.500%	62.157%
0.0400	0.7514	B	2.5%	8.000%	79.143%
0.0500	1.1300	Unrated	0 to <2.5%	9.000%	117.000%
			Weighted Average Yield	4.494%	20.333%
		Implied Annual Excess Return		0.256%	-15.583%
Note: Assumes 1% swap, agency, trust, servicer and other fees.				\$6,400,000	-\$389,576,350

# Subordination Graph



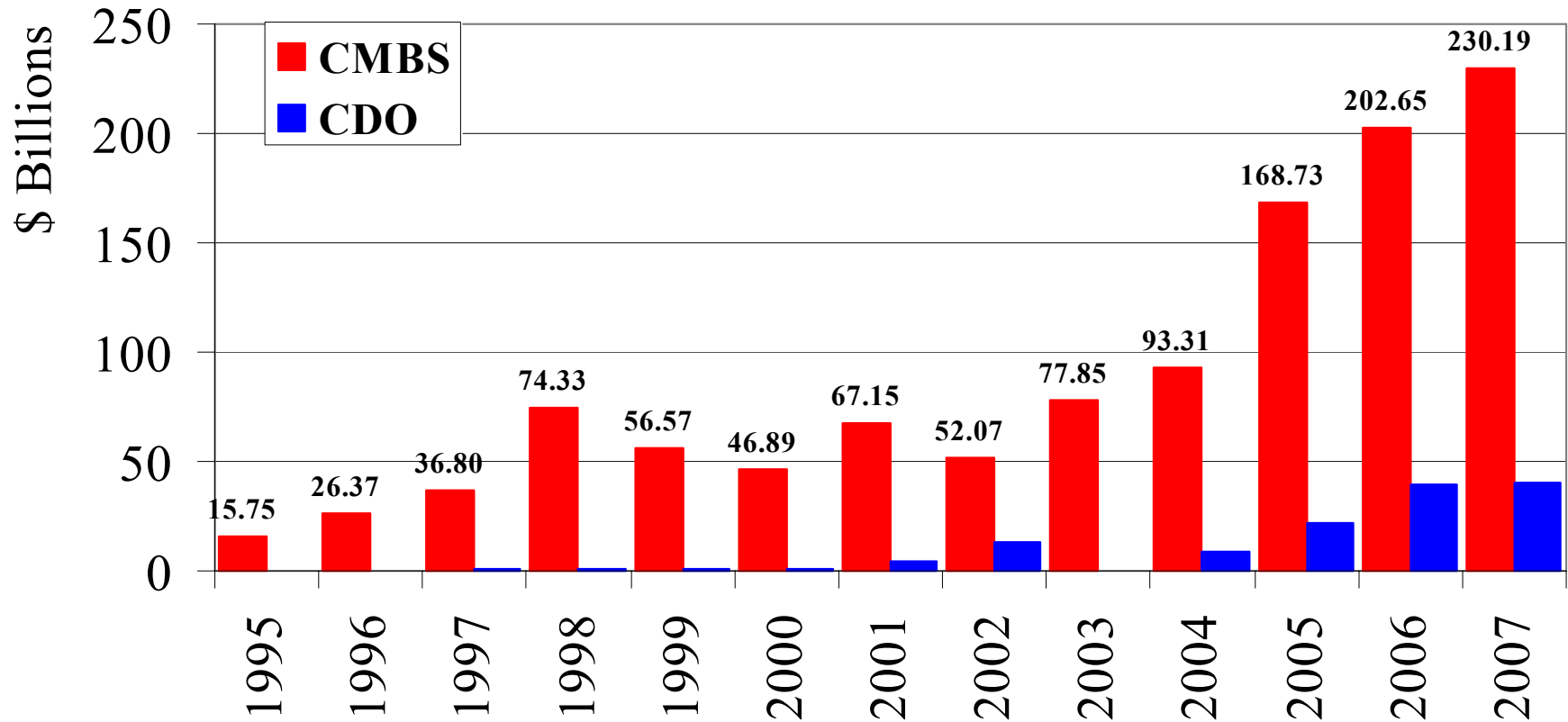
# CMBS Outstandings in U.S. - Grows



Source: Federal Reserve Flow of Funds, Z1.L126.NSA, Greer Advisors

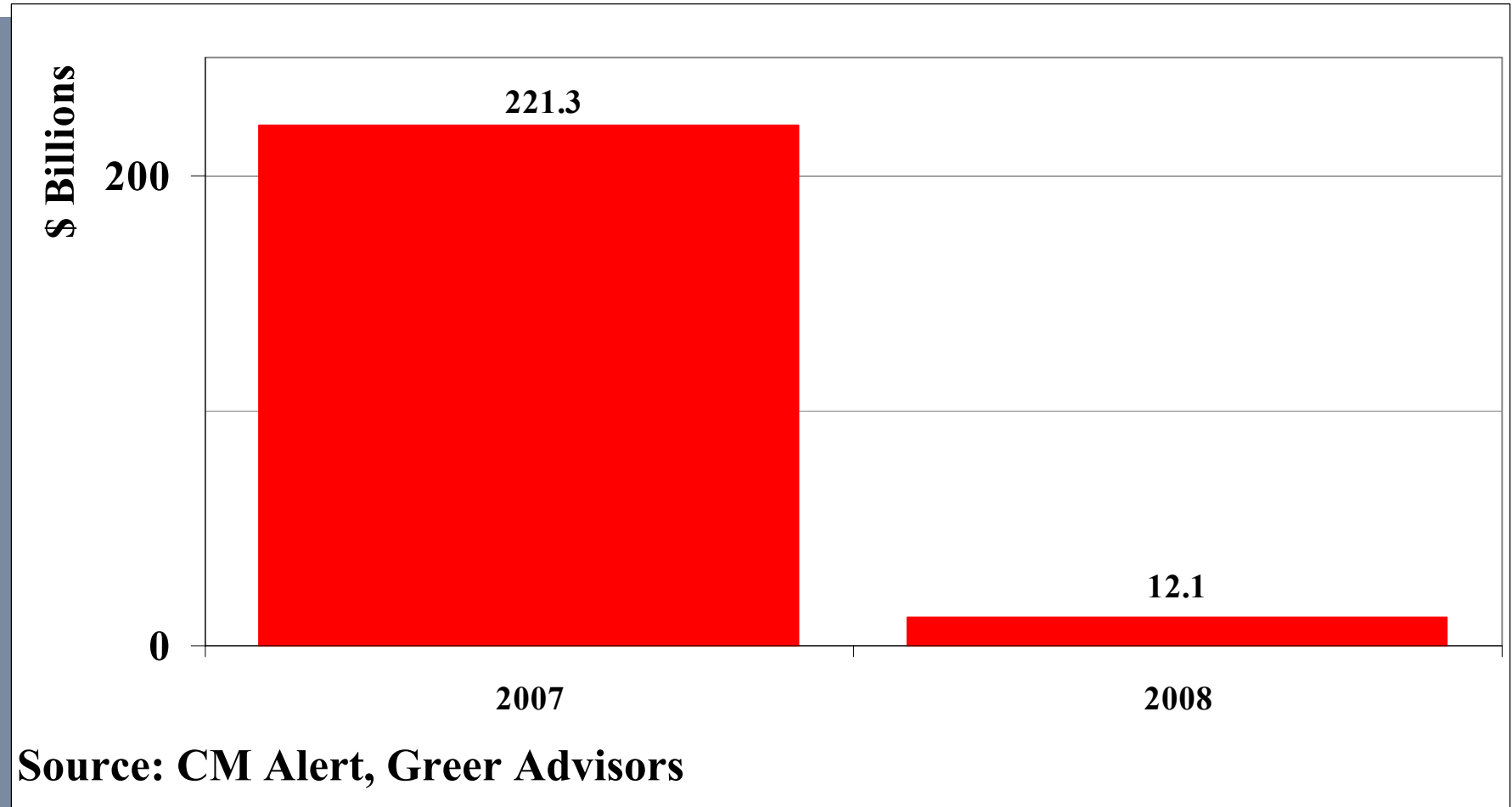
Note: Total of Multi-Family & Commercial Mortgage Asset Backed Securities

# CMBS Issuance in U.S. - Skyrockets



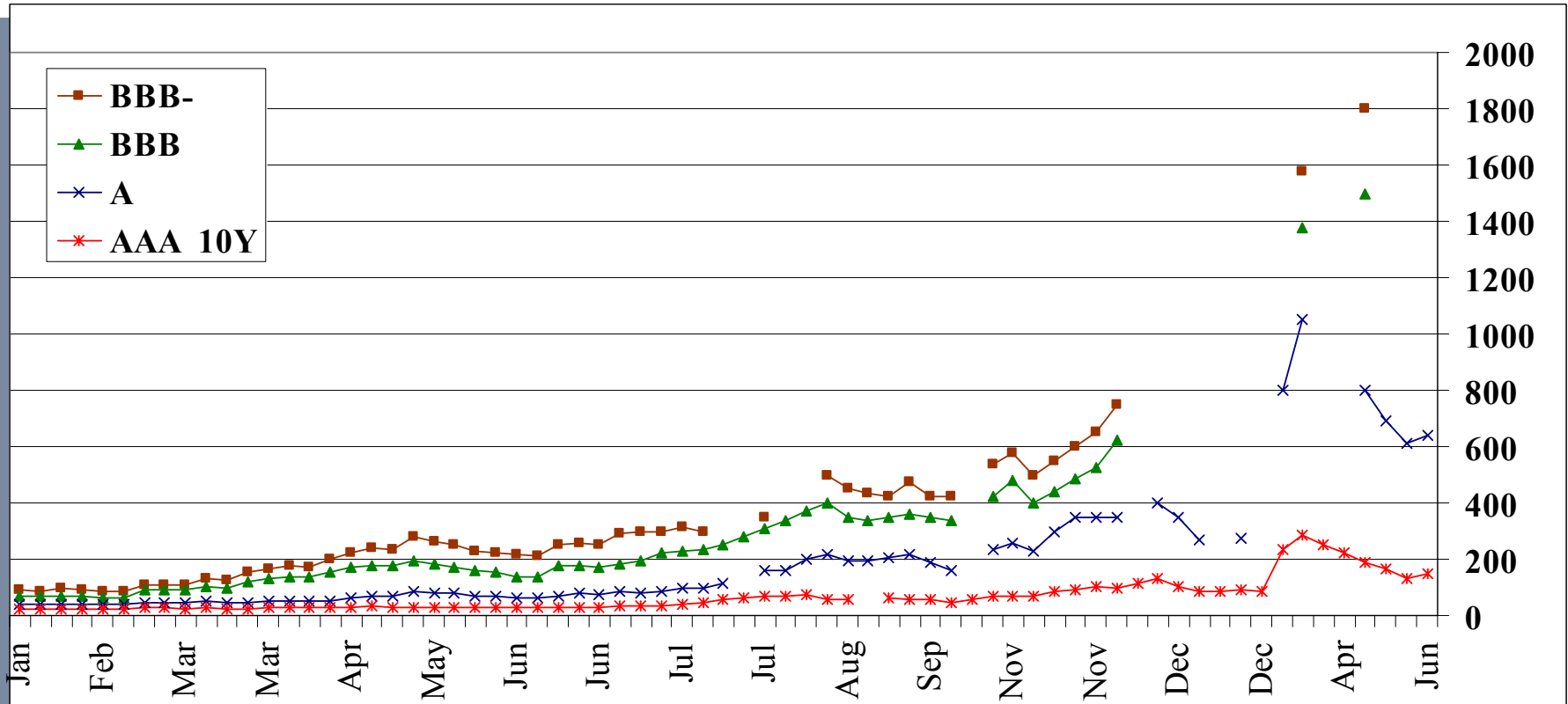
Source: CM Alert, Greer Advisors

# CMBS Issuance in U.S. – 2008 Off 95% YTD





# CMBS Yield Spreads (Spread to Swap)

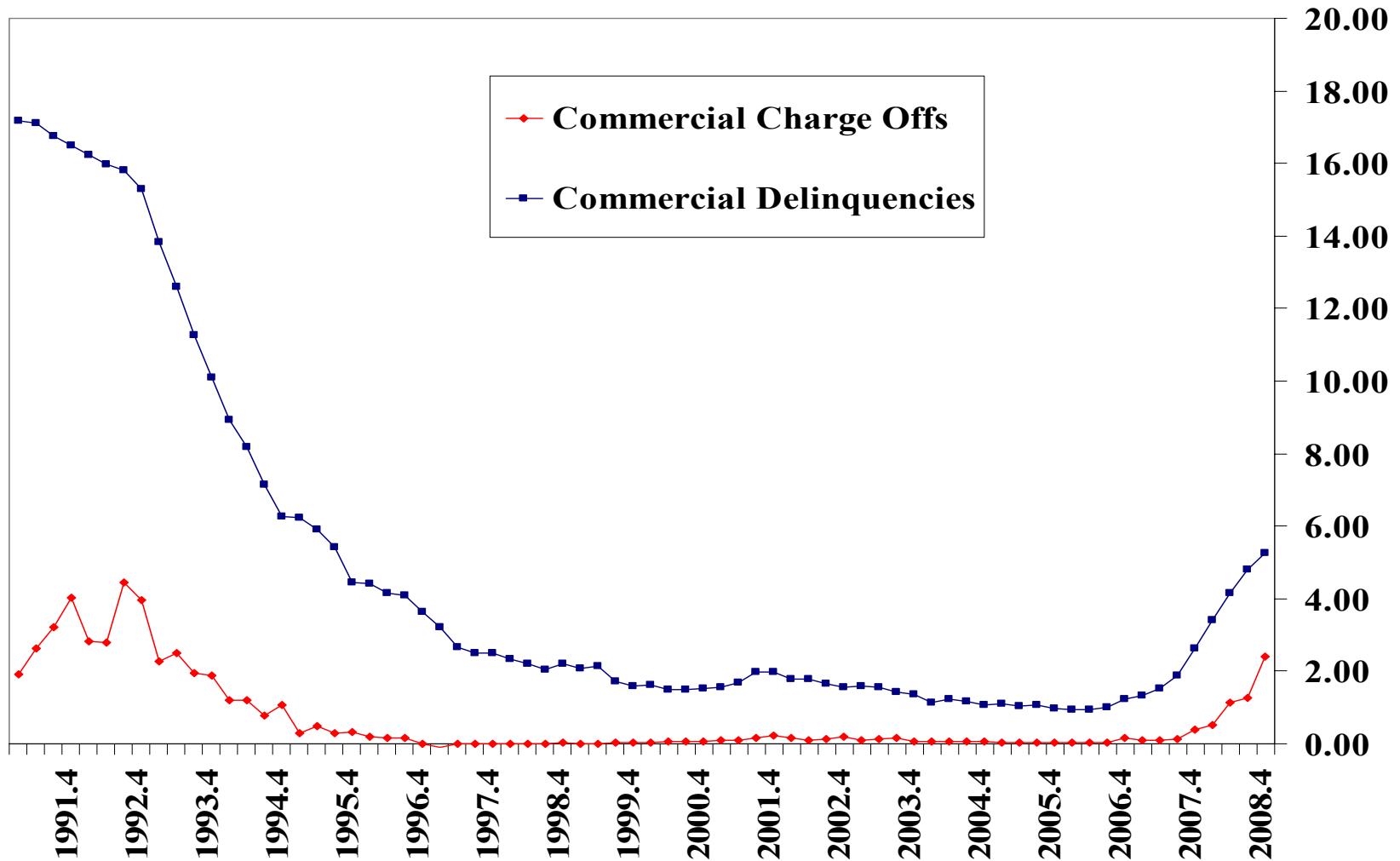


Source: CM Alert, Greer Advisors

Note: X-axis not to scale. Spreads are "over swaps" for 10-year Treasuries.

Note: Last CMBS closed was June 29, 2008

# Commercial Real Estate Loans



Source: Fed Reserve Board, Top 100 Banks, SA,

# Synthetic CMBX Yields (Spreads to Swaps)

<b>Tranche *</b>	<b>Yield over Swaps* 3/16/09</b>	<b>Approx CMBS 1/2007 **</b>	<b>Rise in Yields**</b>
<b>CMBX.5 AAA</b>	<b>702.57</b>	<b>20.0</b>	<b>682.57</b>
<b>CMBX.5 AAA AJ</b>	<b>2,083.57</b>	<b>25.0</b>	<b>2,058.57</b>
<b>CMBX.5 AA</b>	<b>3,285.86</b>	<b>40.0</b>	<b>3,245.86</b>
<b>CMBX.5 A</b>	<b>4,168.29</b>	<b>55.0</b>	<b>4,113.29</b>
<b>CMBX.5 BBB</b>	<b>5,560.00</b>	<b>70.0</b>	<b>5,490.00</b>
<b>CMBX.5 BBB-</b>	<b>5,815.71</b>	<b>85.0</b>	<b>5,730.71</b>
<b>CMBX.5 BB</b>	<b>7,514.29</b>	<b>105.0</b>	<b>7,409.29</b>

Source: \*Markit, Greer Advisors

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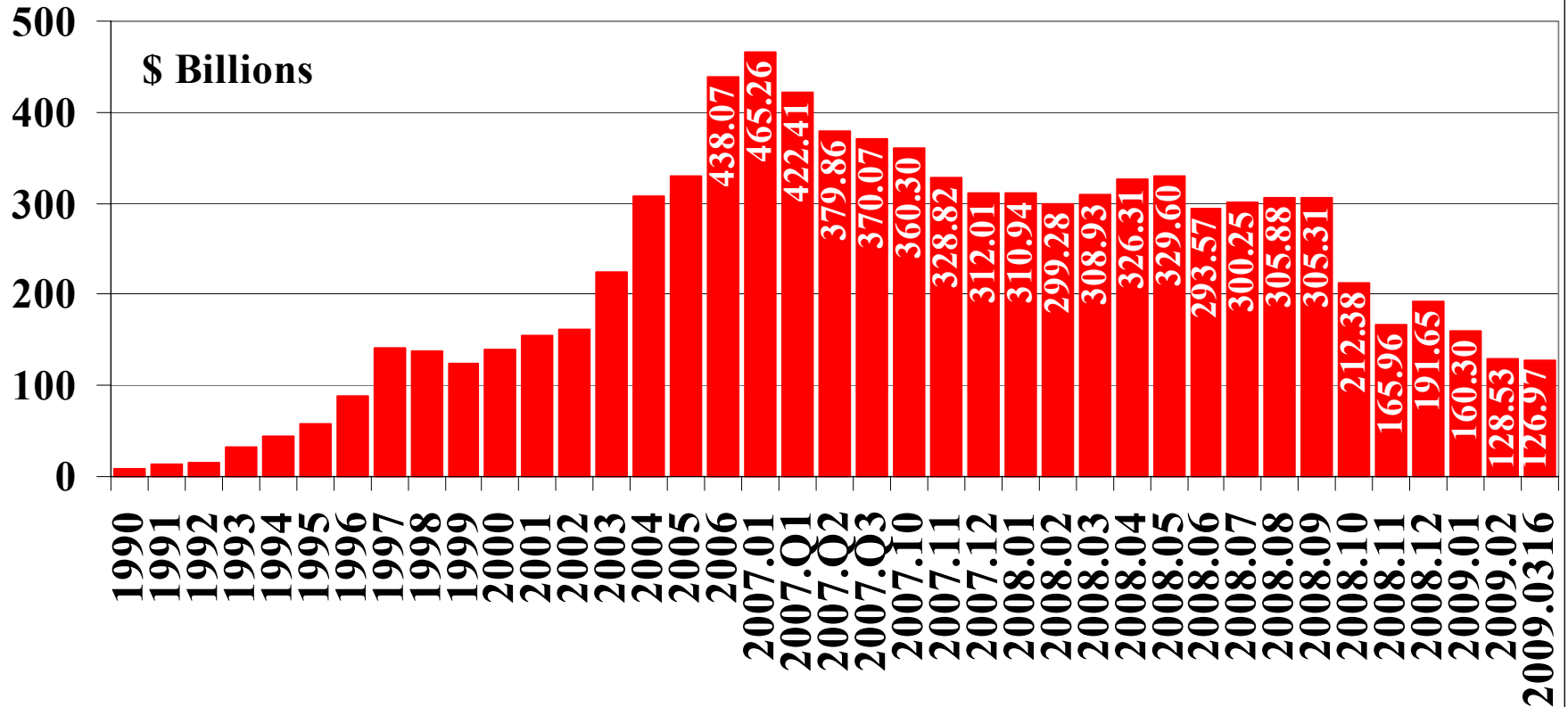
# CMBS/X – Implied R.E. Yields

Tranche	Yield Spd	Suboord	Weight D	Debt	Wght T	Total
AAA Sr*	702.57	29.76%	70.24%	75%	52.68%	5.54%
AAA Jr*	2083.57	12.70%	17.06%	75%	12.80%	3.11%
AA*	3285.86	10.63%	2.07%	75%	1.55%	0.56%
A*	4168.29	8.00%	2.63%	75%	1.97%	0.89%
BBB*	5560.00	4.72%	3.28%	75%	2.46%	1.45%
BBB-*	5815.71	3.68%	1.04%	75%	0.78%	0.48%
BB*	7514.29	2.69%	0.99%	75%	0.74%	0.58%
Unrated	9200.00	0.00%	2.69%	75%	2.02%	1.93%
			100.00%			
Class A Prop.	5800.00	100%		25%	25.00%	15.38%
Swap Rate	350.00				Total	27.91%
Class B Prop.	9200.00	100%		25%	25.00%	23.88%
Note: Class A yield assumed ≈ BBB-, Class B assumed 1000 bps higher					Total	38.43%

Source: \*Markit, Greer Advisors

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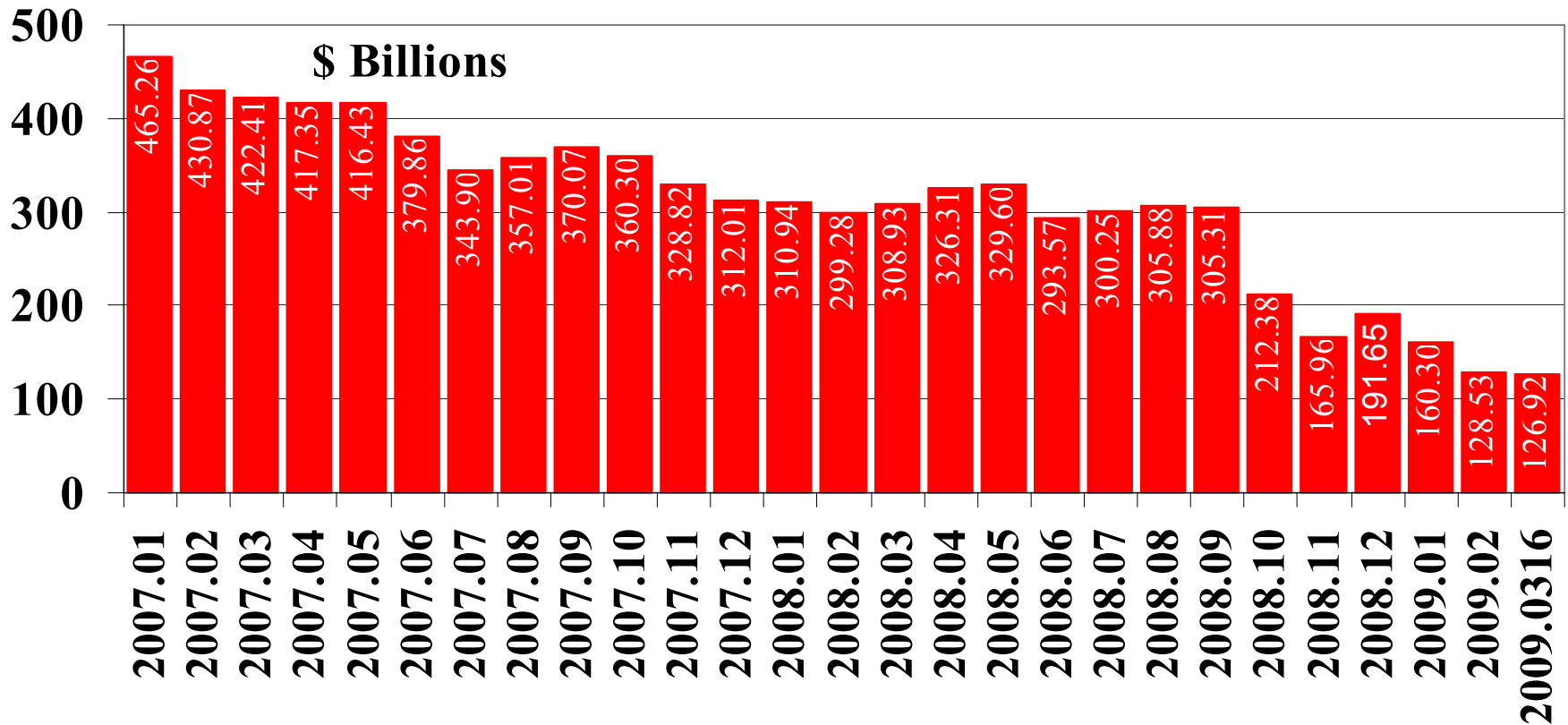
# REIT Market Capitalization



**Source: NAREIT, Greer Advisors**

**Note: Includes Equity, Debt and Hybrid REITS**

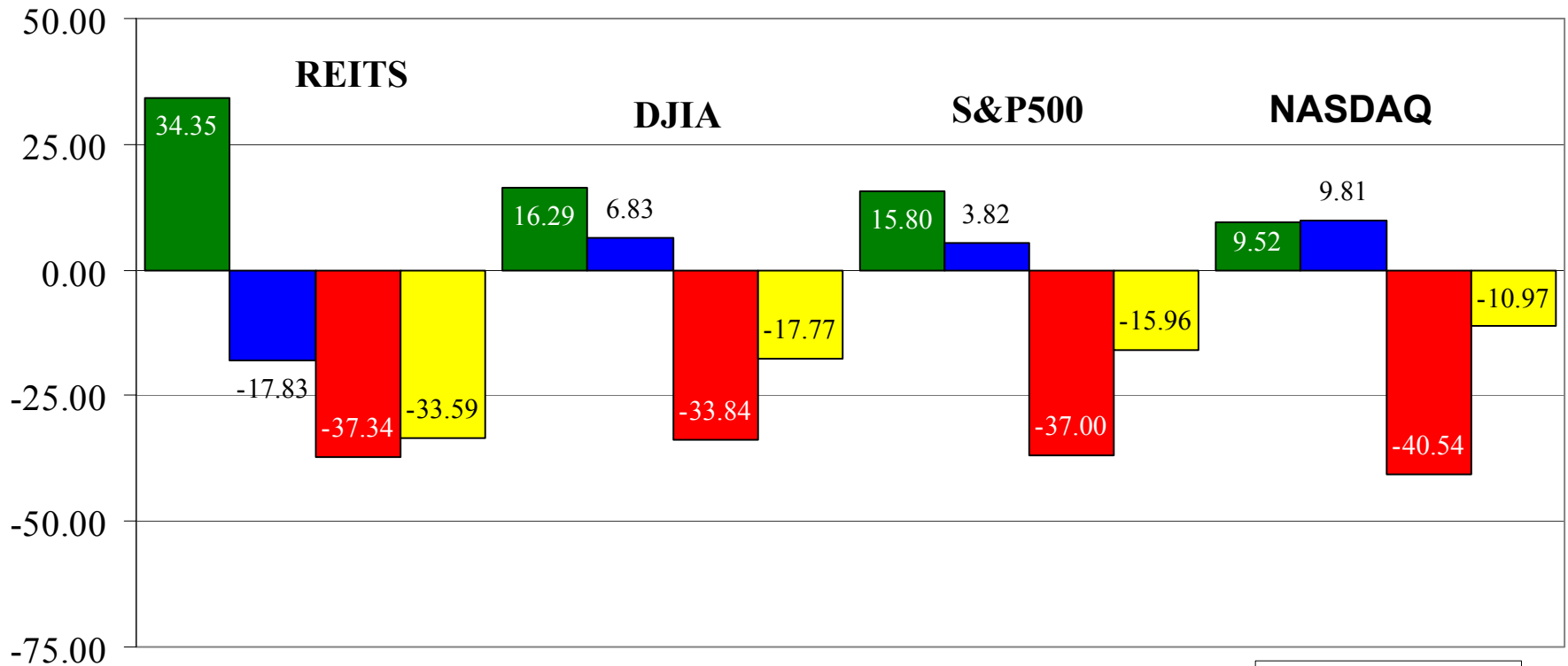
# REITs Lose \$338 Billion or 73% of value



Source: NAREIT, Greer Advisors

Note: Includes Equity, Debt and Hybrid REITS

# Benchmark Returns — Changes so Fast!

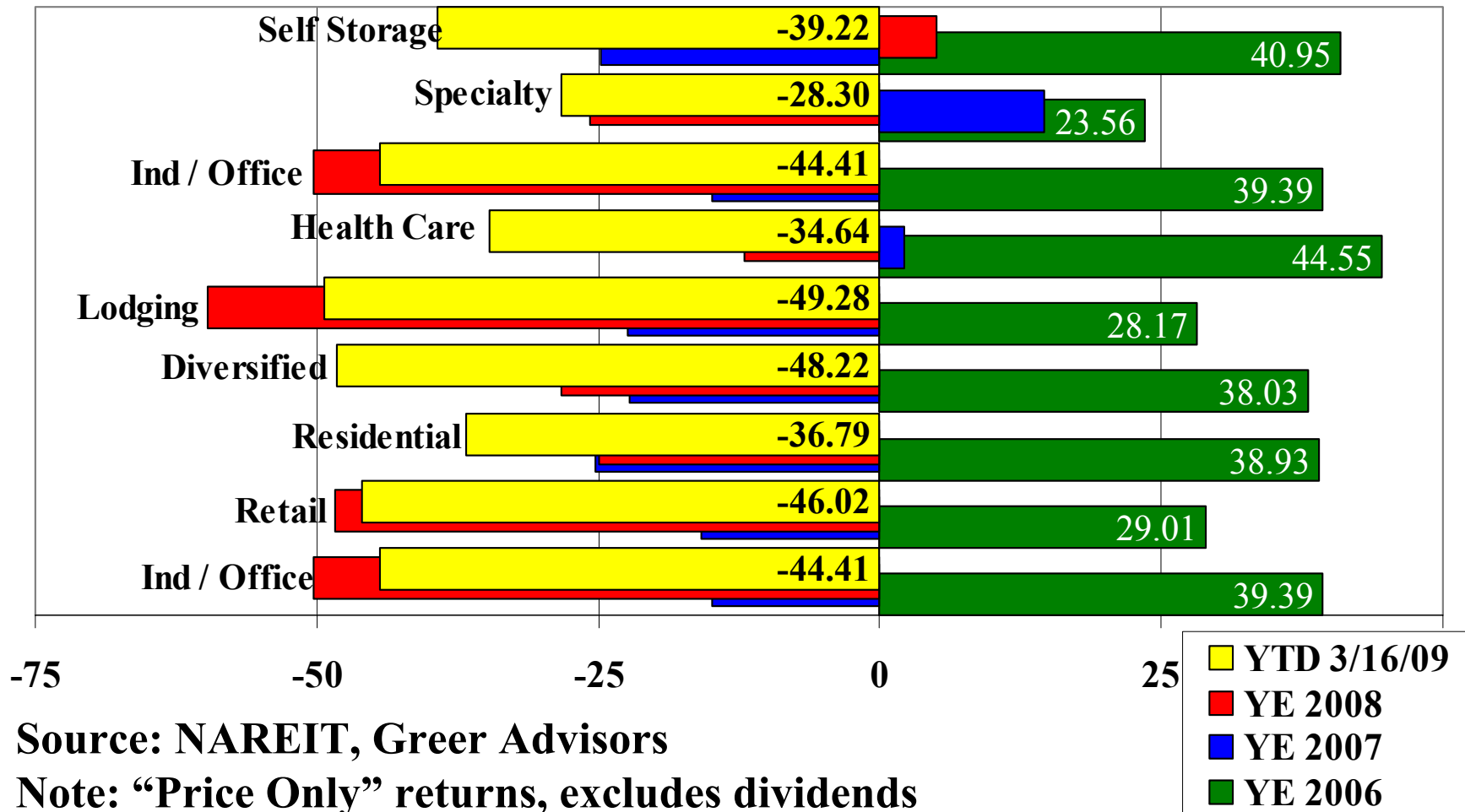


**Source: NAREIT, Greer Advisors**

**Note: “Price Only” returns, excludes dividends**

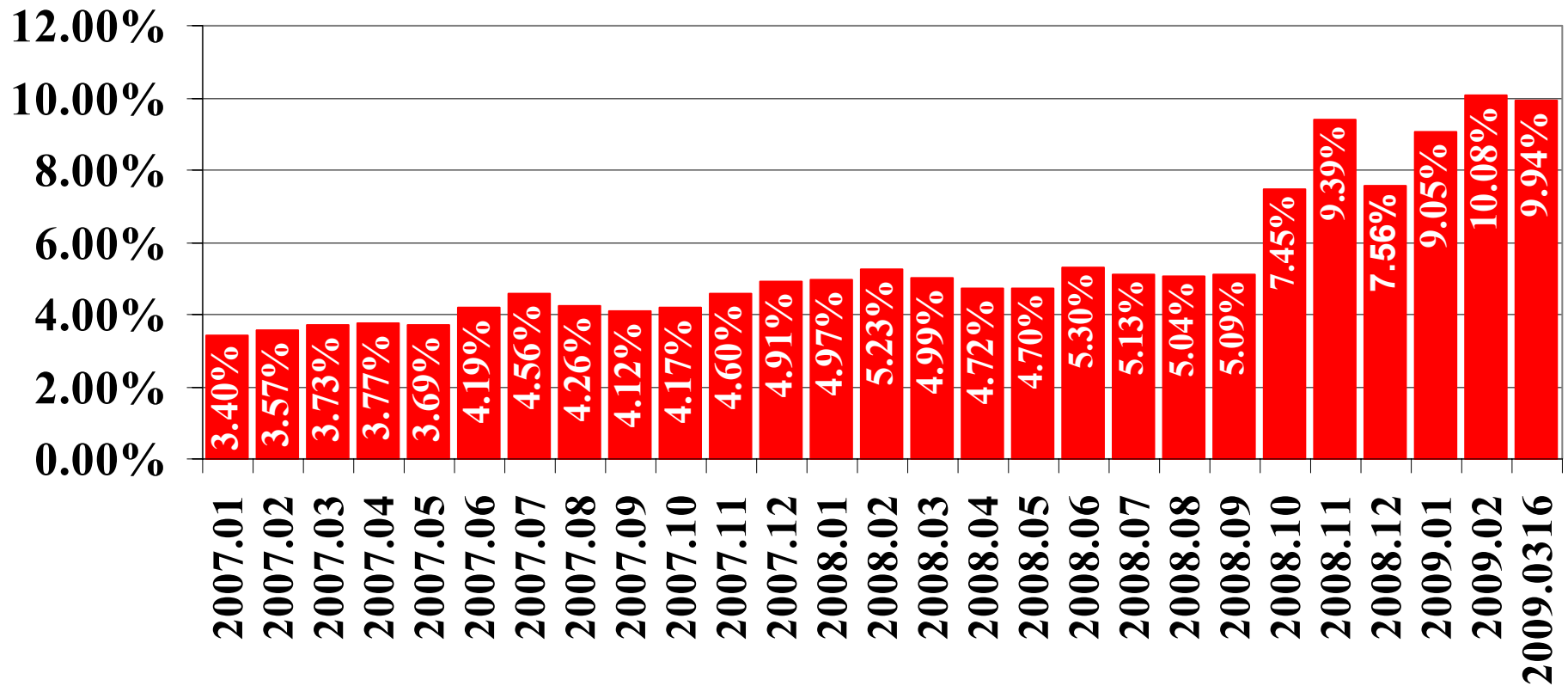


# REIT Property Type Returns — Old vs. New





# REIT Capitalization Rate Trends



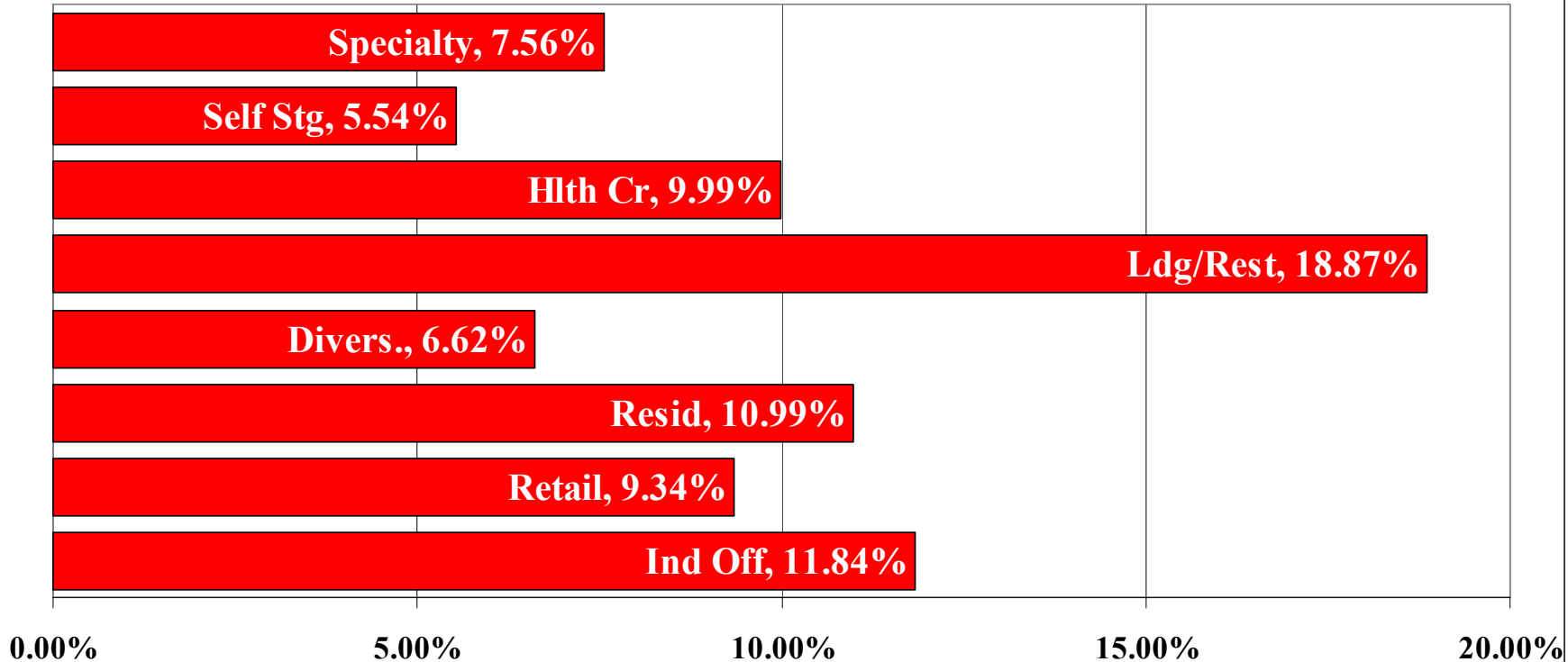
Source: NAREIT, Greer Advisors

2009.0316 = MTD

Note: Dividend Yield from NAREIT "Equity Only" REIT Index

# REIT Cap Rates by Property Type

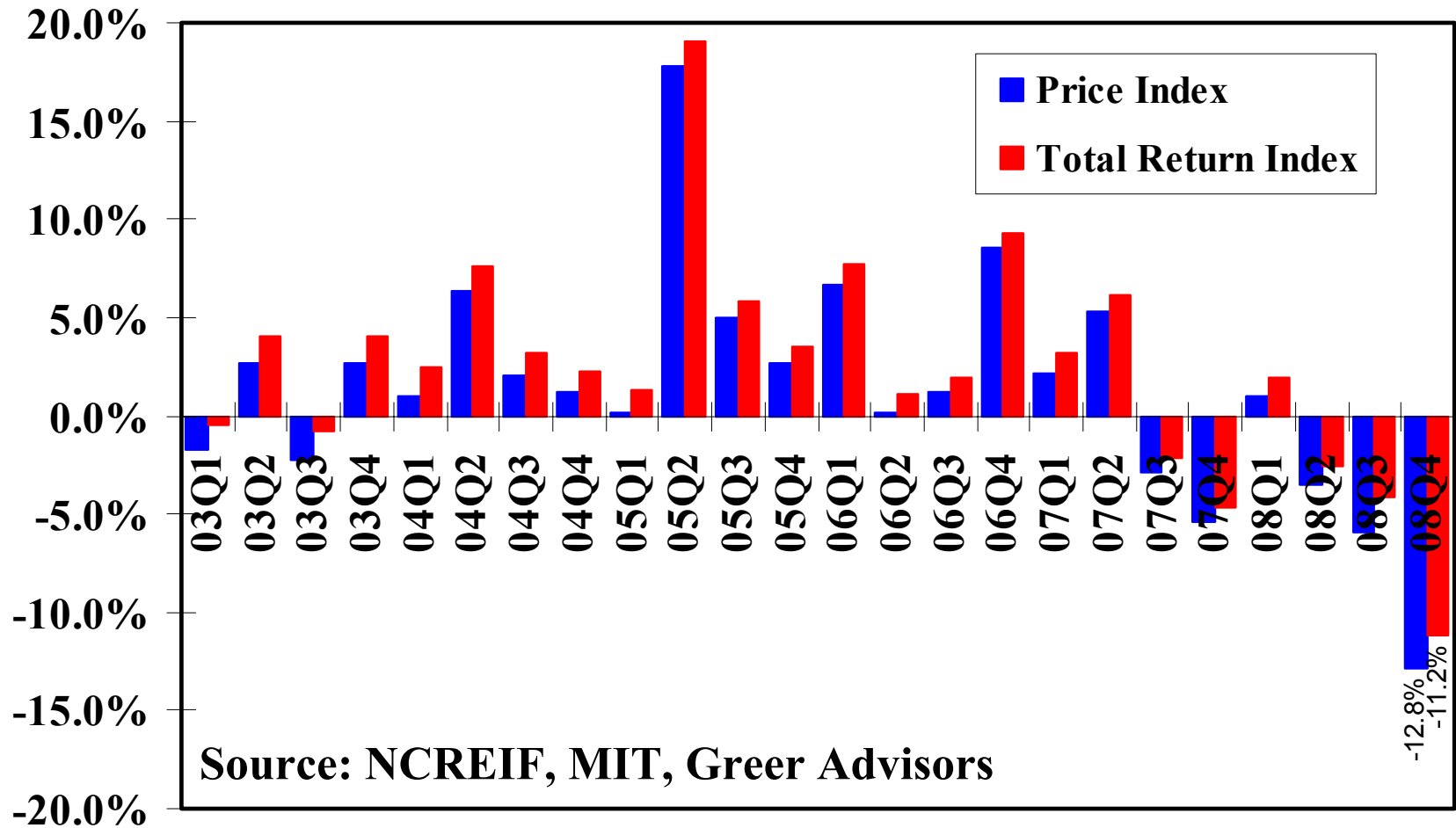
Dividend Yields per NAREIT Equity REIT Index



Source: NAREIT, Greer Advisors

Note: Dividend Yields as of 3/16/09, Overall = 9.94%

# NCREIF 08.Q4 Price Down/ Total Down



# Value Fundamentals

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CMBS Market is Effectively Broken = Opportunities

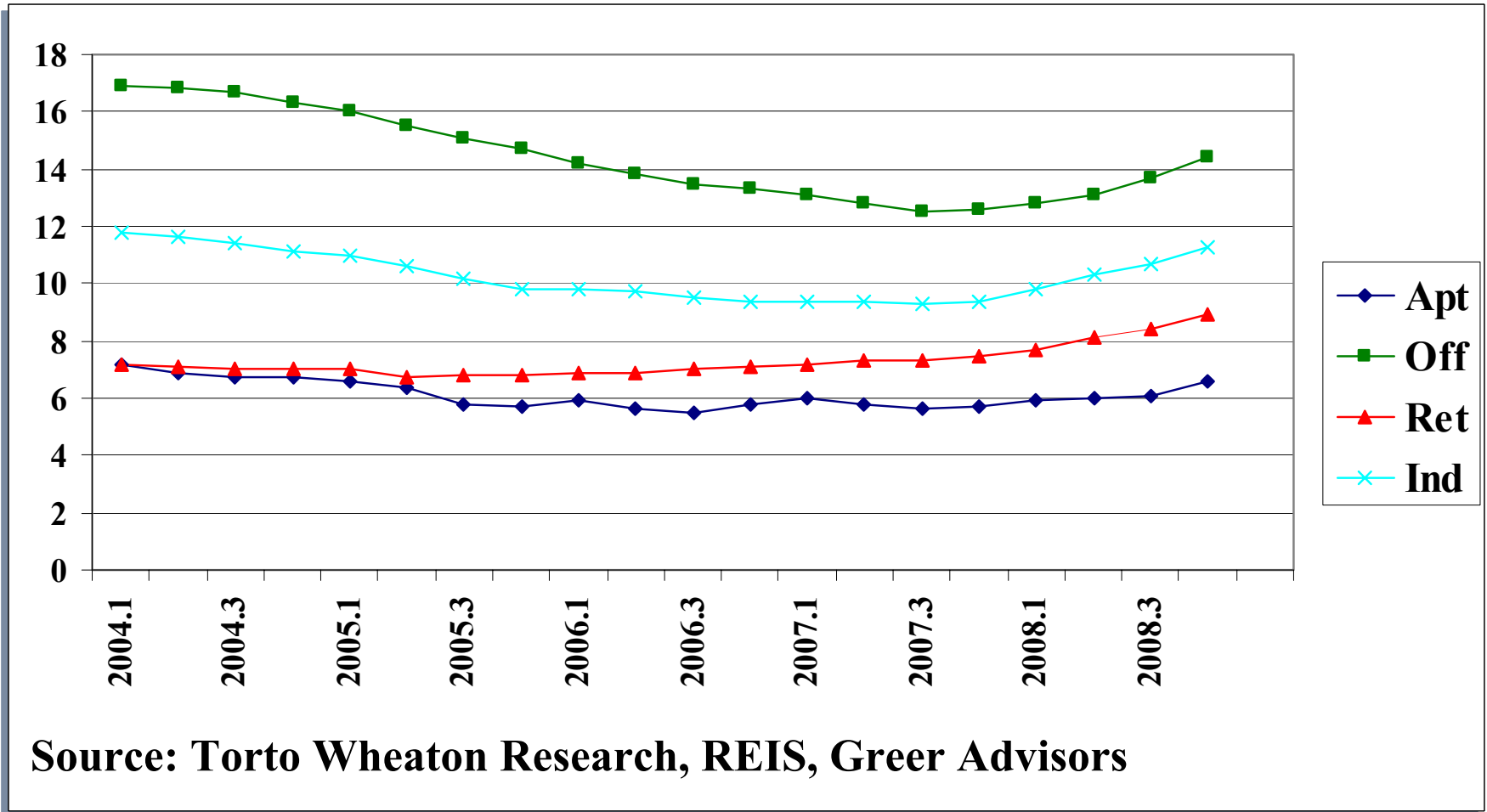
CMBS/CMBX Industry – Imply R.E. Yields Doubled

REITS are “Off” more than 50% = Opportunities

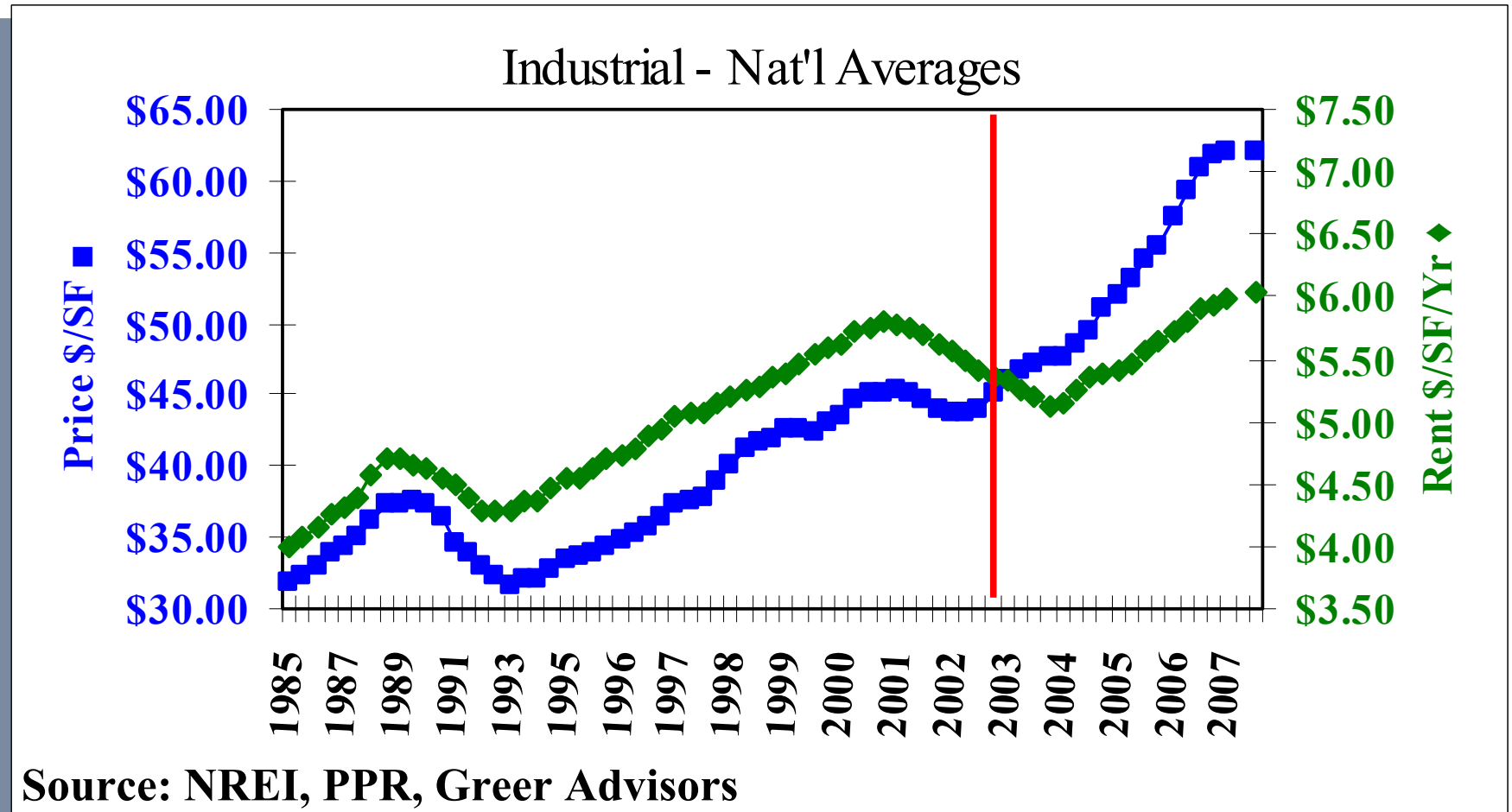
NCREIF is nearly Flat (down 2-3%)

Market Change brings Opportunities!

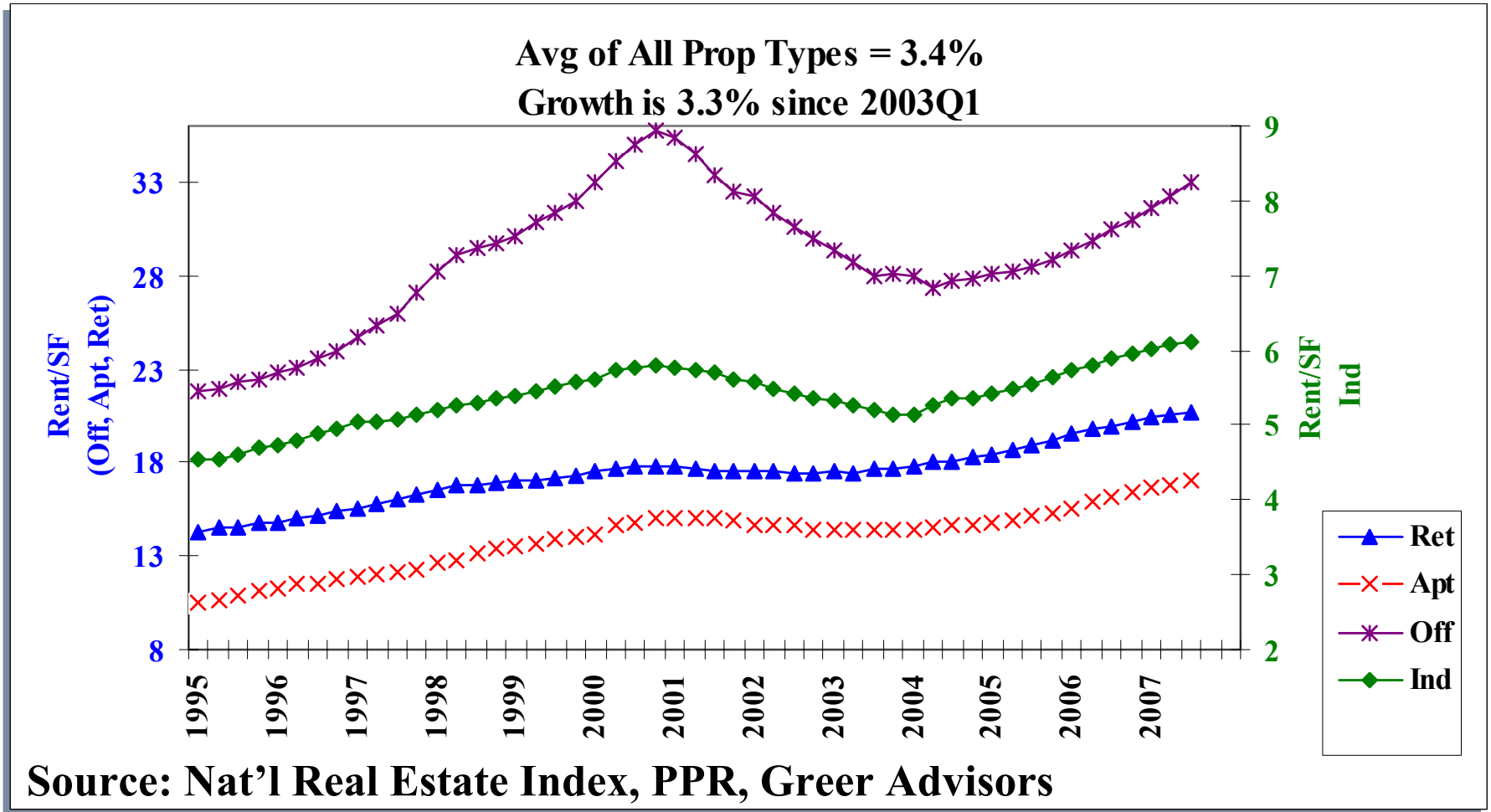
# National Trend — Vacancy — thru '08Q4



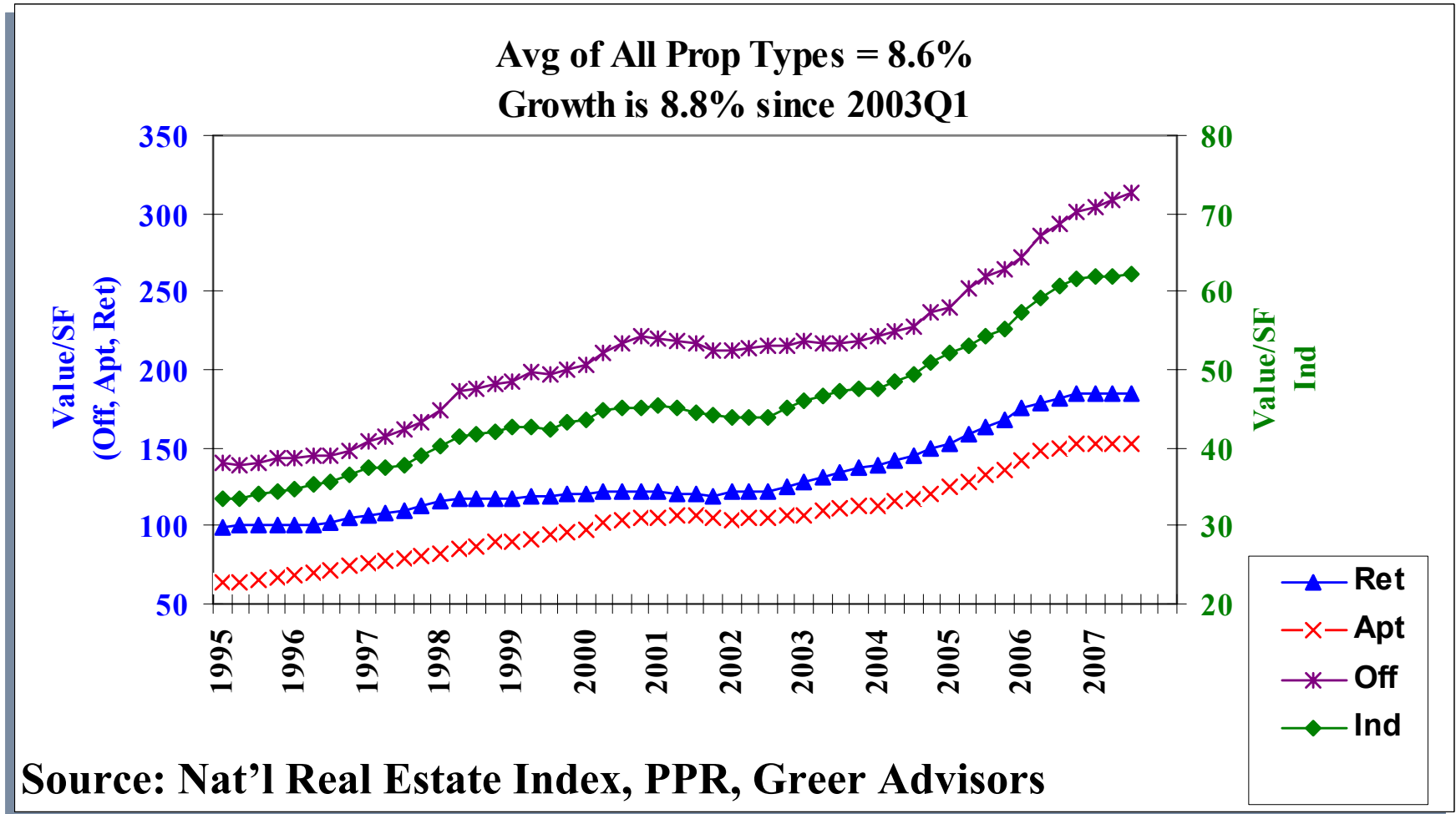
# The Relationship Breaks in 2003



# Market Trends — National Rents



# Market Trends — National Values



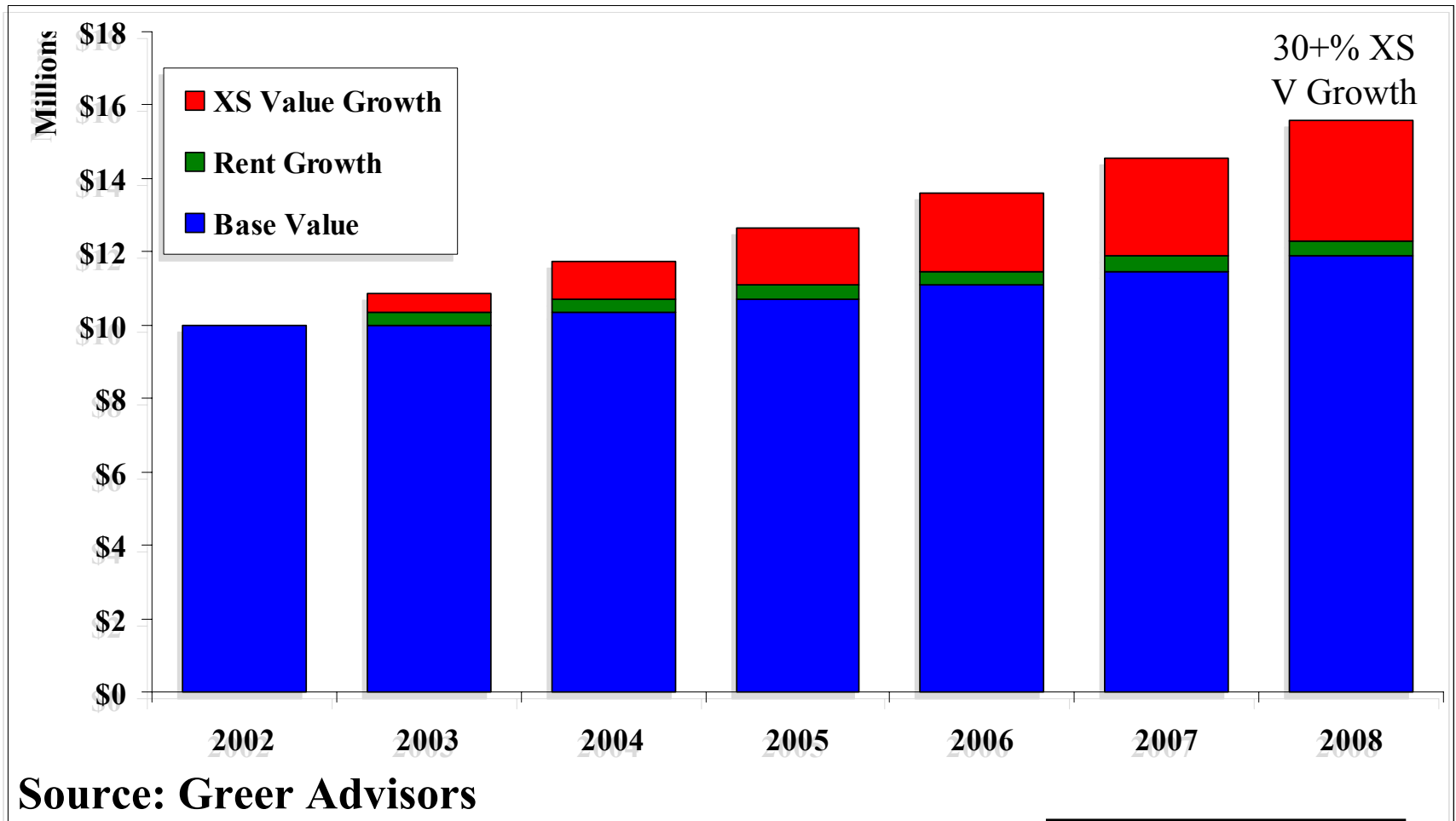


# Growth Example — Value vs. Income

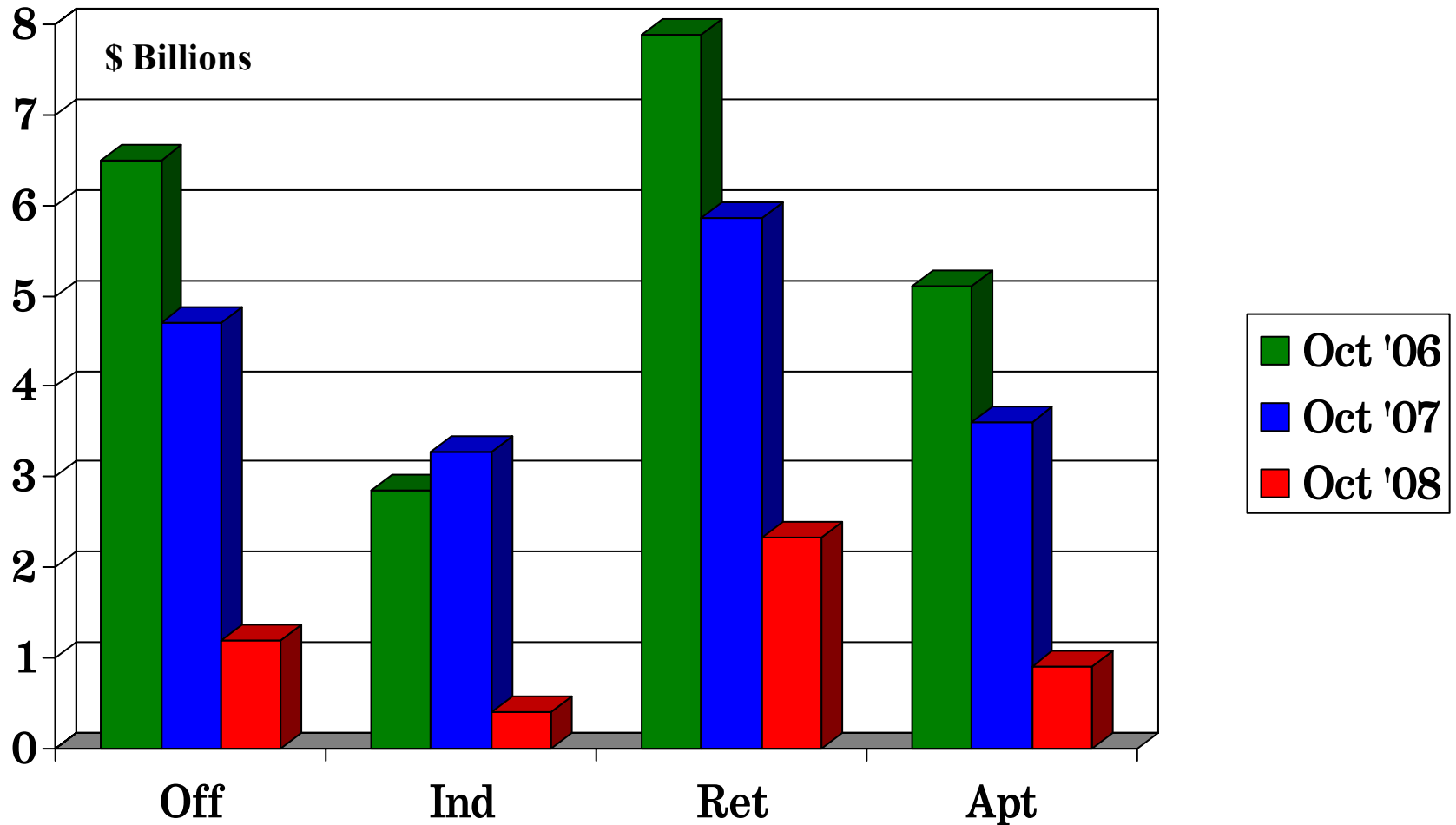
Year	Rent	RentG	Ind Cap	Value
2002	750,000	3.30%	7.50%	\$10,000,000
2003	774,750	3.30%	7.12%	\$10,880,000
2004	800,317	3.30%	6.76%	\$11,837,440
2005	826,727	3.30%	6.42%	\$12,879,135
2006	854,009	3.30%	6.09%	\$14,012,499
2007	882,192	3.30%	5.79%	\$15,245,598
2008	911,304	3.30%	5.49%	\$16,587,211
	average	3.30%		8.80%

- Increase in value was only “interest rates” first 2 years. Momentum effect carried it further. What happens when it stops?

# Rent versus Value Growth



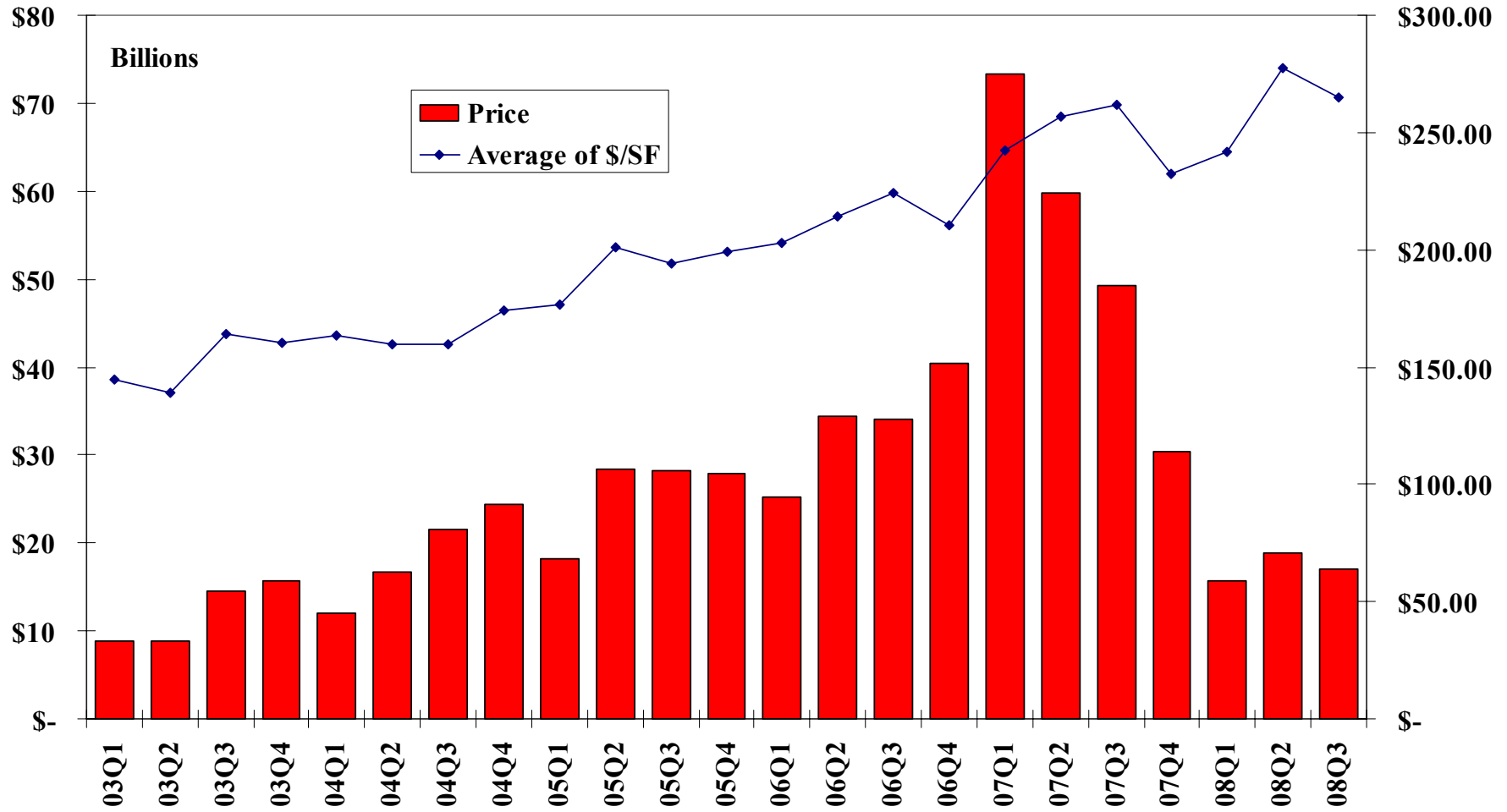
# Sales Volume Trends (National)



Source: Real Capital Analytics CTM 11/08

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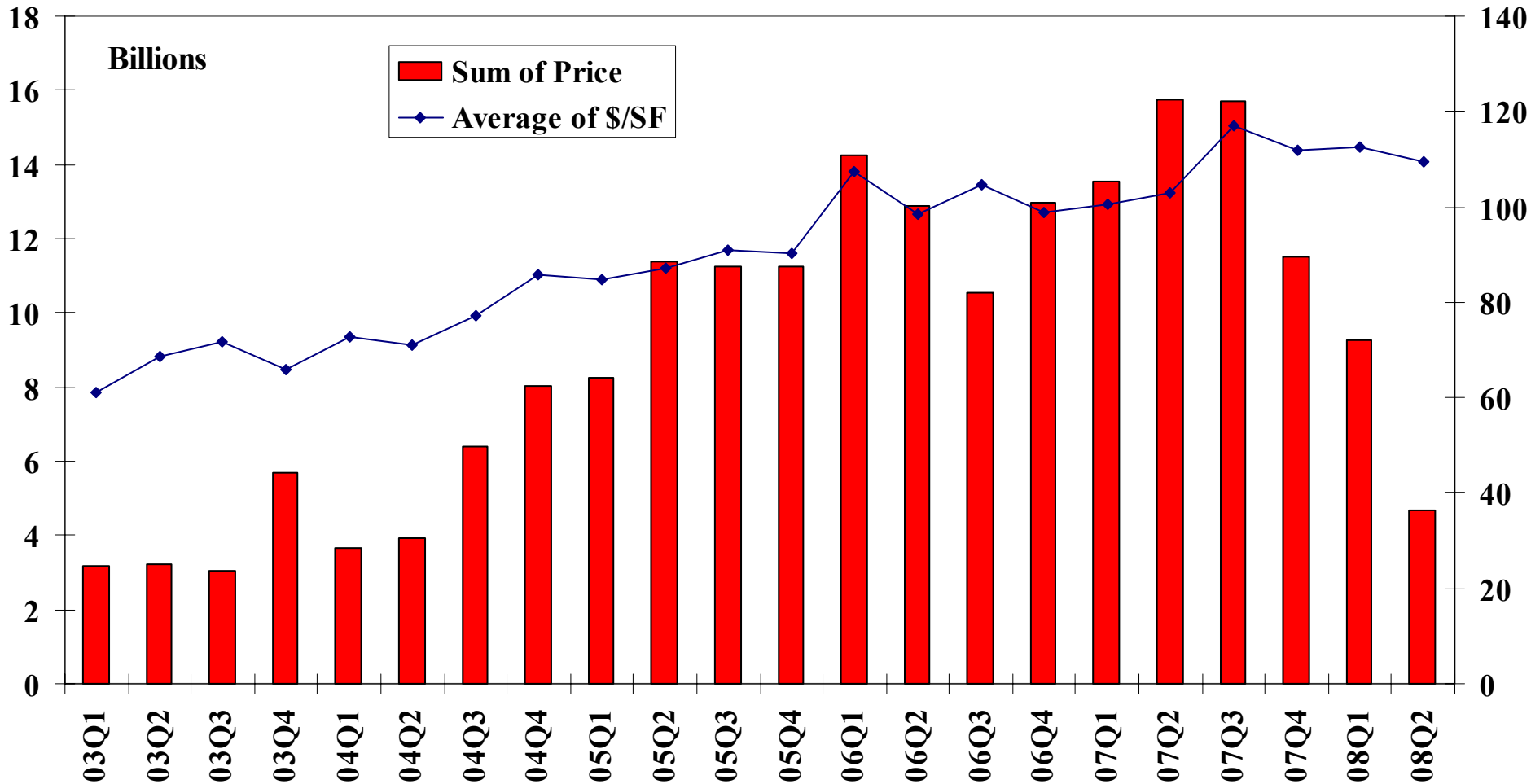
# Sales Trends – Office – 75% Q3 '08 vs. '07



Source: Real Capital Analytics, Greer Advisors

**Greer Advisors**

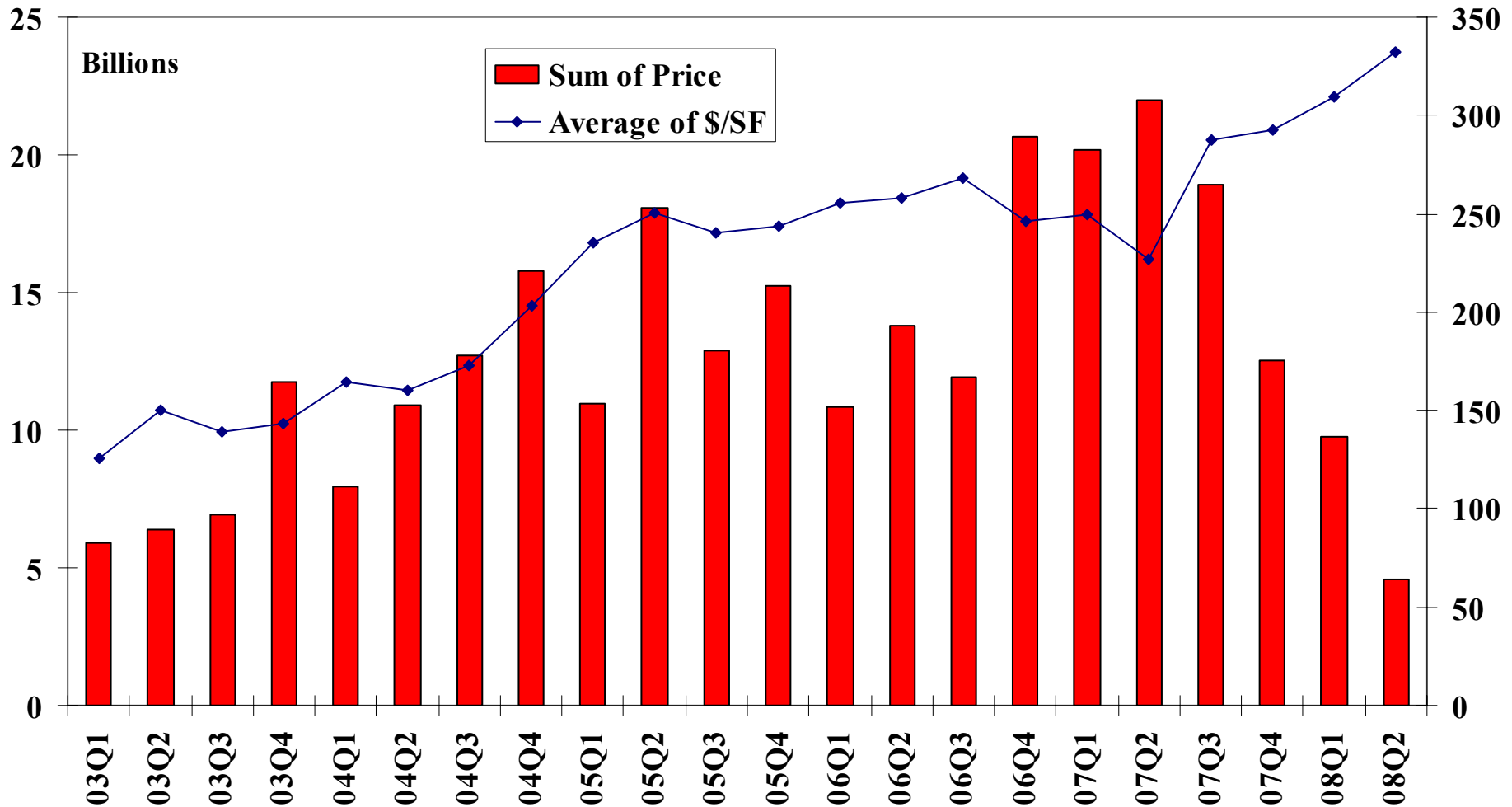
# Sales Trends – Ind – 54% Q3 '08 vs. '07



Source: Real Capital Analytics, Greer Advisors

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# Sales Trends – Retail – 71% Q3 '08 vs. '07



Source: Real Capital Analytics, Greer Advisors

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# Vacancy Top / Bottom Markets – Q408\*\*

U.S.		Off -13.9%		Ind - 11.3%		Apt 5.7%		Ret** – 8.9%		Hot* 66.1%	
Top	1	New York	6.8	Los Angel	5.5	Pittsburgh	2.7	Fairfield	3.6	New York	82.1
	2	Honolulu	9.5	Salt Lake	7.0	San Diego	3.4	San Jose	3.8	San Francis	76.4
	3	Long Islan	9.7	Tucson	7.3	Newark	3.4	Los Angeles	3.9	Honolulu	75.7
	4	San Franci	10.6	San Franci	7.6	Oakland	3.5	Orange Cou	3.9	Los Angele	73.4
	5	Stamford	10.8	Houston	7.6	Edison	3.6	N New Jrs	4.0	Miami	73.1
Bottom	5	Dallas	19.2	Stamford	16.6	Dayton	8.2	Cincinnati	14.4	Hartford	58.7
	4	W Plm Bch	20.3	Detroit	18.1	Atlanta	8.5	Columbus	14.4	Detroit	57.5
	3	Edison	20.3	Memphis	18.7	Greensboro	8.6	Syracuse	14.8	Cincinnati	56.9
	2	Detroit	21.1	Trenton	19.3	Phoenix	9.8	Dayton	15.4	Cleveland	56.4
	1	Phoenix	22.0	Ann Arbor	24.8	Jacksonvill	10.0	Birmingham	15.5	Dayton	52.8
Spread			15.8		15.6		7.3		11.9		35.3

Source: TWR (Off, Ind, Apt, Hot), REIS (Ret),  
Greer Advisors, \*Hot = Occ, \*\*Ret = Q3

# Quote of the Day

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“...prediction is very difficult, especially when it’s about the future...”

~~NY Yankees #8, Yogi Berra~~

Niels Bohr

Nobel Laureate, 1922

Atomic Structure /

Quantum Mechanics





# Conclusions

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- CMBS Market – Yield Spreads 10-50x Higher
- CMBS – New Business Model will Arise
- REITs – Down 60%
- NCREIF – Mixed / Marginal Changes
- Most Lenders Closed, Stopped or Reduced Lending
- Financing Cap/Yield Rates Have RISEN
- CASH IS KING!
- Value Growth will Lag Rent Growth
- Rents / Vacancies Remain better than early 1990s
- Values Undergoing Correction

# Greer's 3-Year Forecast as of 3/18/2009

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- Borrowing Rates will Rise Dramatically
- Margins (to 10 Yr Treasuries or LIBOR) will rise 200+ bps in 2009 and settle 350±50 bps over 10 year Treasuries
- Rent Growth will Lag CPI growth by 0-5%
- Values will fall 5-15% from 2008-2011. Individual Market Performance will vary widely (10-30% difference in Top vs Bottom)
- Capitalization Rates will Rise 2-4% during 2008-2011 (eg 5.0% to 7.25% = 30% decline in value)
- Declines: #1=Retail; #2=Industrial & Office; then Apartment
- Change Creates Opportunities

# Greer's Recovery Signs

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- CDS Exposure under \$30 Trillion (i.e. under 50% of peak)
- Decline in CMBx Yield Spreads for 6 straight weeks
- Re-emergence of CMBS market
  - New CMBS Market will include:
    - Issuer Keeps 1-3% 1<sup>st</sup>-loss piece
    - AAA Subordination near 30%....
    - AAA is 70%, not 90% of issue
- REIT Market Capitalization (Total Value) Stabilizes or Increases for 6 months
- Consumer Confidence Rises and stays above 70 for 6 months  
As of 2/24/09 index stands at 25.0 (1985=100)
- Risk Curve (AAA Sr. vs BB) flattens to under 500 bps. As of 3/16/08, spread stands near 6,800 bps.

# Questions / Answers

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