
Capital Markets and Commercial Real Estate

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Goals of Presentation

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

Fundamentals

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

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?

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?

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?

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?

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.

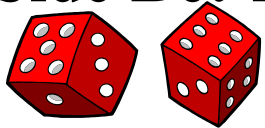
Players in “Simple” CDS

Business Issues Bonds

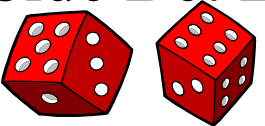


Bonds initially rated too poor for market, eg “BB”

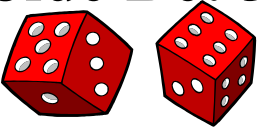
Side Bet 1



Side Bet 2



Side Bet 3

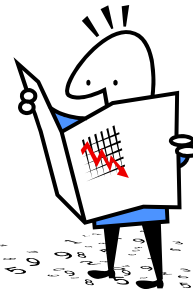


Investment Bank issues CDS (aka Credit Enhances Debt) Enough to make BB = AA, if debtor fails, IB buys bonds

Rating Agency Rates Bonds



Gives loss forecast & amount required for “AA” rating



Pension Fund Buys Bonds with CDS enhancement
Thinks it's AA investment

Greer Advisors, LLC

Evolution of CDS

- 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

■ DEBT ISSUANCE

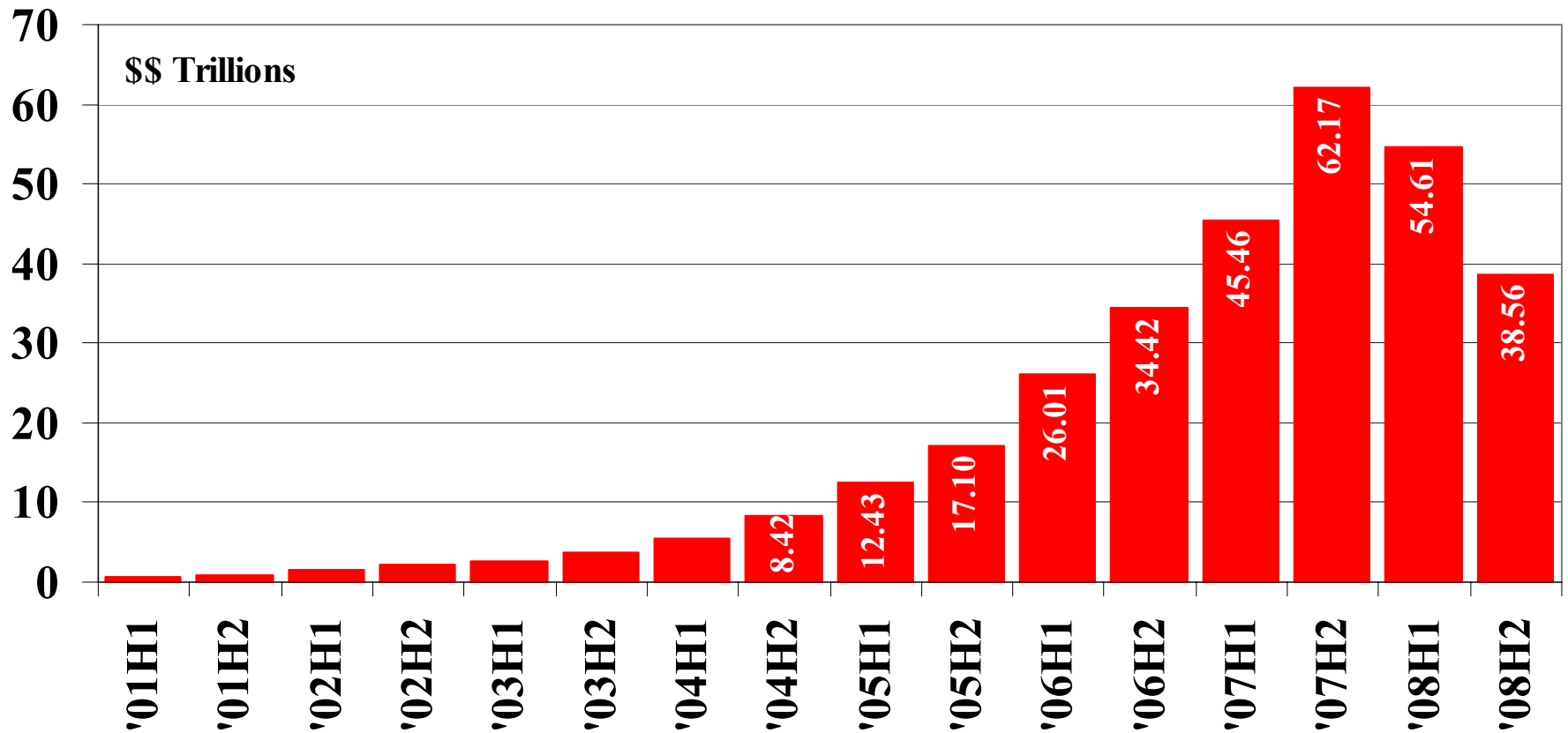
- Debt Issued \$1B
- SRA Rates Debt
- Estimated Loss = \$10MM = “B” Rating
- SRA says \$1MM = AA
- \$9MM CDS bought
- Debt “credit enhanced” from “B” to “AA”

■ 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

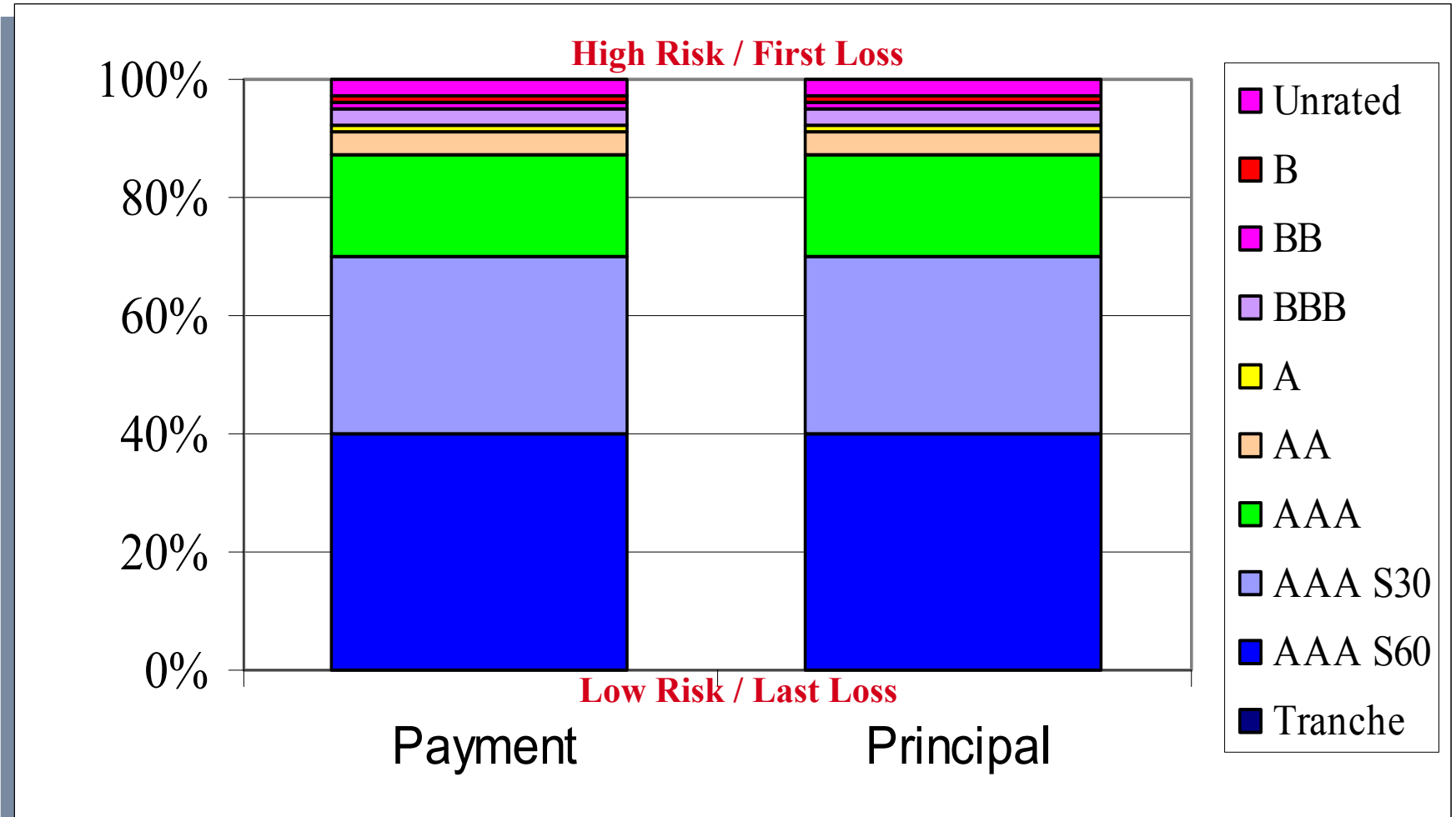


Source: ISDA (Voluntary Survey), Greer Advisors, LLC

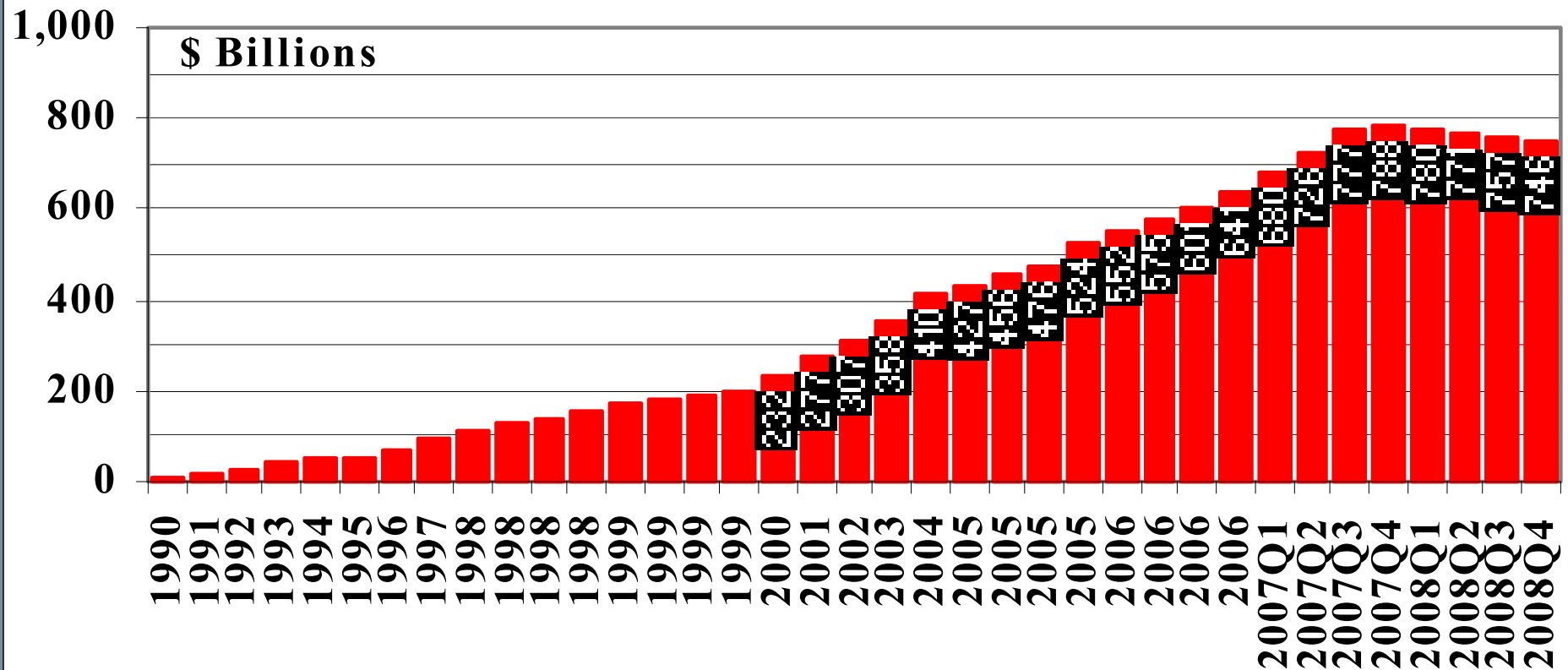
Example of a “Typical” CMBS

		No. Loans		250	
		Avg. Loan Size		\$10,000,000	
		Total Loan Amt.		\$2,500,000,000	
		Index Name		10-Year Treasury	
		Index Rate		3.100%	
		Avg. Margin		1.750%	
		Avg Yield		4.850%	
THEN	NOW			THEN	NOW
2007.01	2009.0520	Rating (10Y)	Subordination	2007.01	2009.0520
0.0020	0.0081	AAA S60	60.0%	3.300%	3.913%
0.0025	0.0083	AAA S30	30.0%	3.350%	3.925%
0.0030	0.0559	AAA	12.5%	3.400%	8.689%
0.0040	0.1312	AA	9.0%	3.500%	16.216%
0.0100	0.2288	A	8.0%	4.100%	25.981%
0.0175	0.3961	BBB	5.0%	4.850%	42.713%
0.0250	0.4393	BB	4.0%	5.600%	47.030%
0.0400	1.0878	B	2.5%	7.100%	111.876%
0.0500	1.6300	Unrated	0 to <2.5%	8.100%	166.100%
			Weighted Average Yield	3.594%	12.673%
		Implied Annual Excess Return		0.256%	-8.823%
Note: Assumes 1% swap, agency, trust, servicer and other fees.				\$6,400,000	-\$220,574,369

Subordination Graph



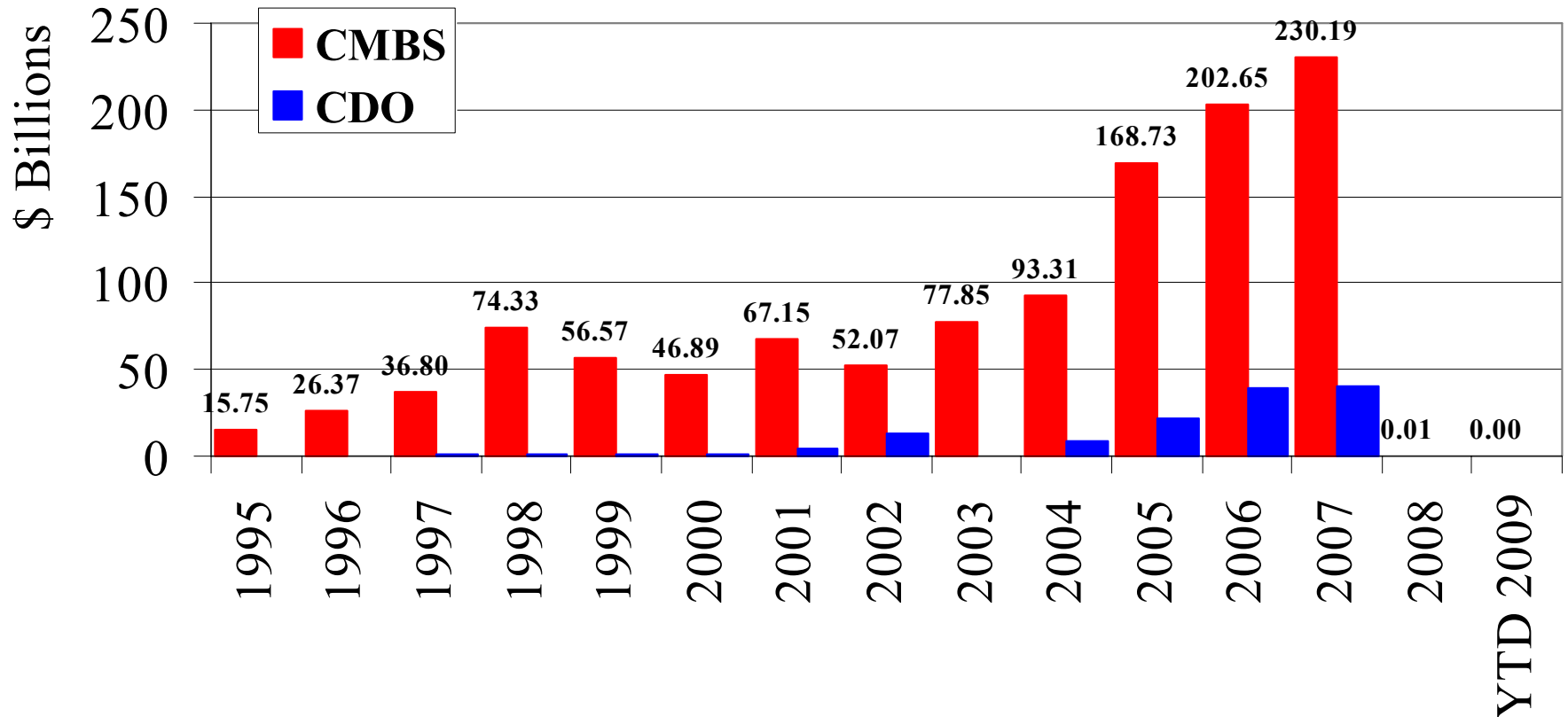
CMBS Outstandings in U.S. - Grows



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

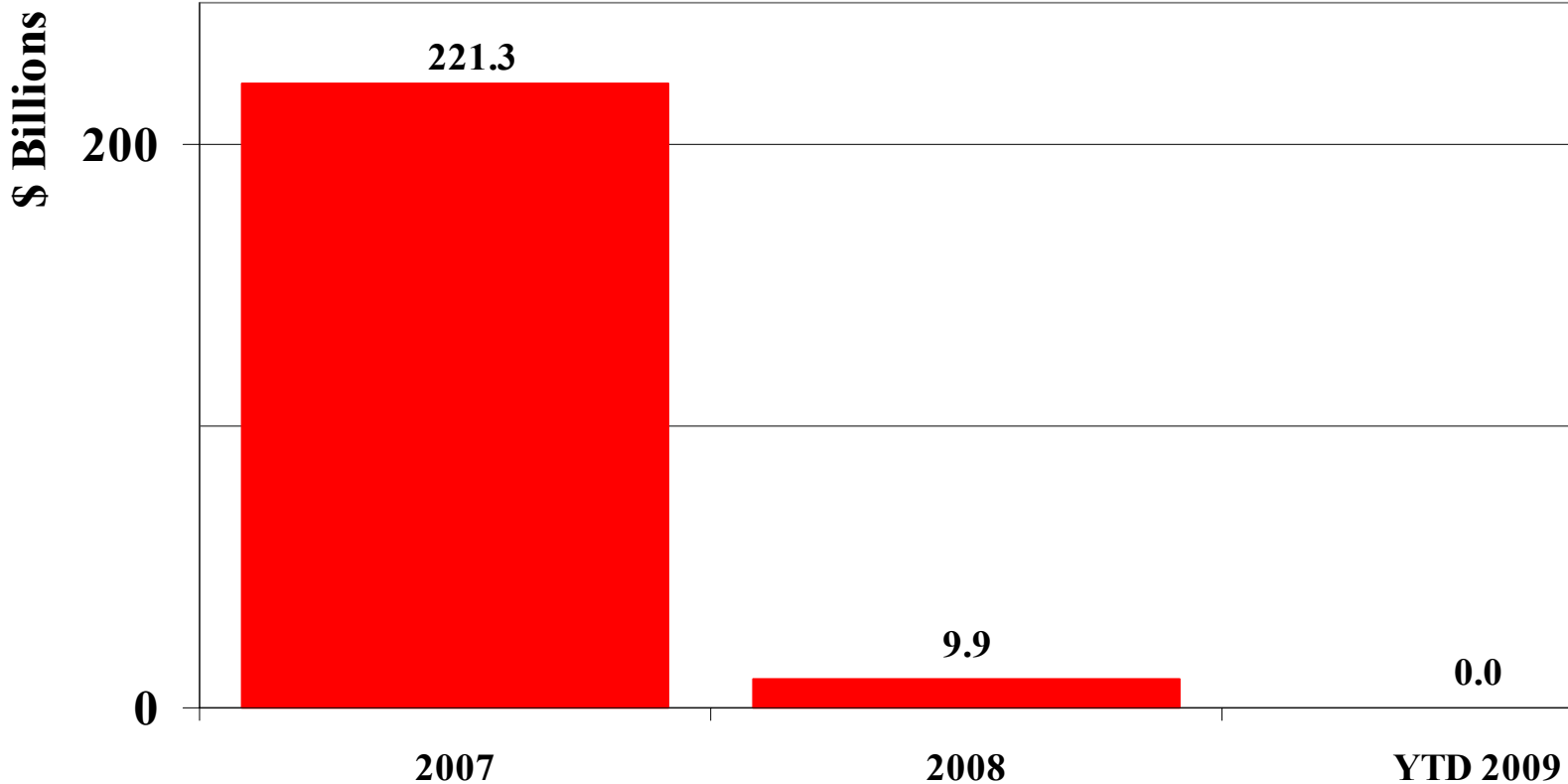
Note: Total of Multi-Family & Commercial Mortgage Asset Backed Securities

CMBS Issuance in U.S. - Skyrockets



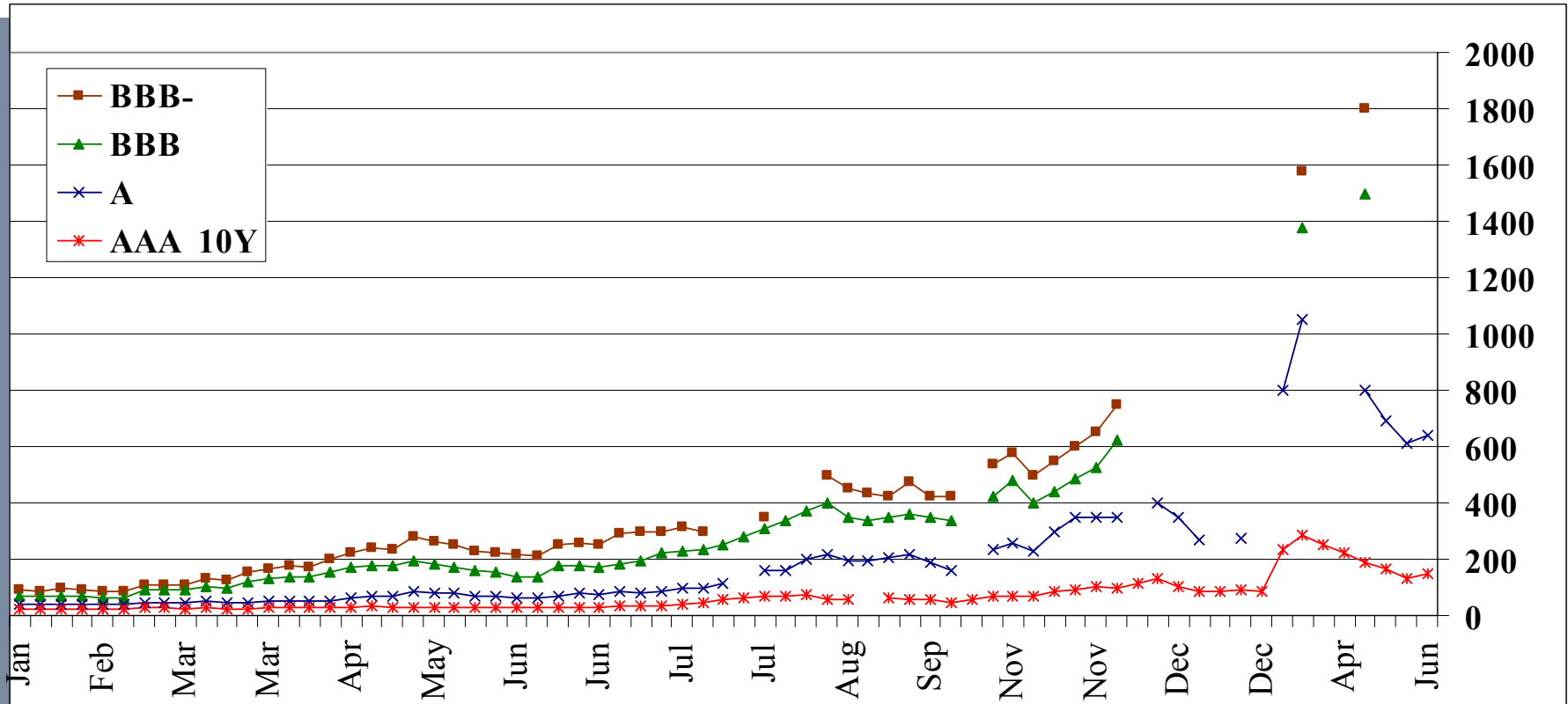
Source: CM Alert 20090508, Greer Advisors, LLC

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



Source: CM Alert 20090508, Greer Advisors, LLC

CMBS Yield Spreads (Spread to Swap)

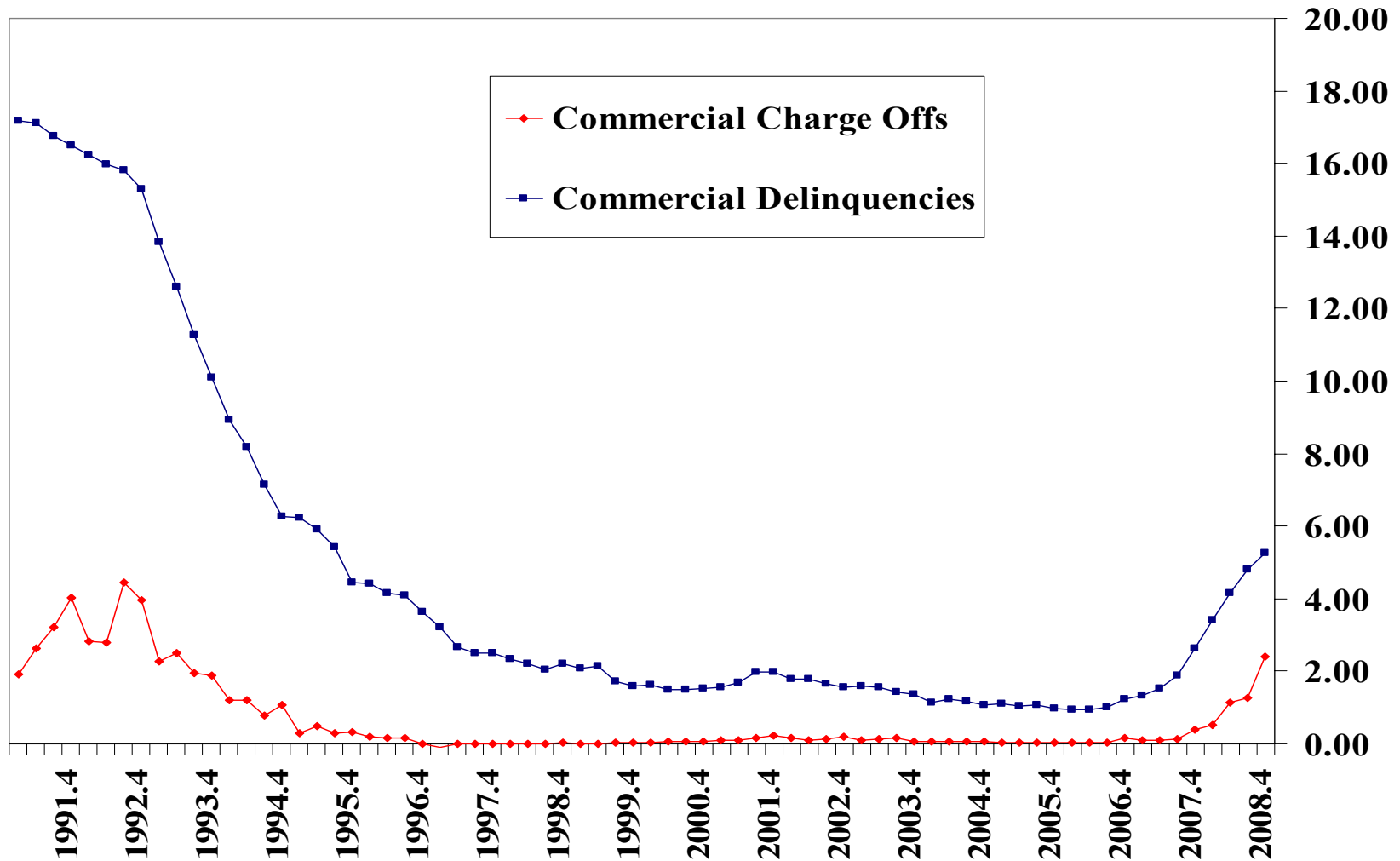


Source: CM Alert, Greer Advisors, LLC

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)

Tranche *	Yield over Swaps* 5/20/09	Approx CMBS 1/2007 **	Rise in Yields**
CMBX.5 AAA	81.71	20.0	61.71
CMBX.5 AAA AJ	558.86	10.0	548.86
CMBX.5 AA	1,311.57	20.0	1,291.57
CMBX.5 A	2,288.06	35.0	2,253.06
CMBX.5 BBB	3,961.34	60.0	3,901.34
CMBX.5 BBB-	4,392.97	85.0	4,307.97
CMBX.5 BB	10,877.57	105.0	10,772.57

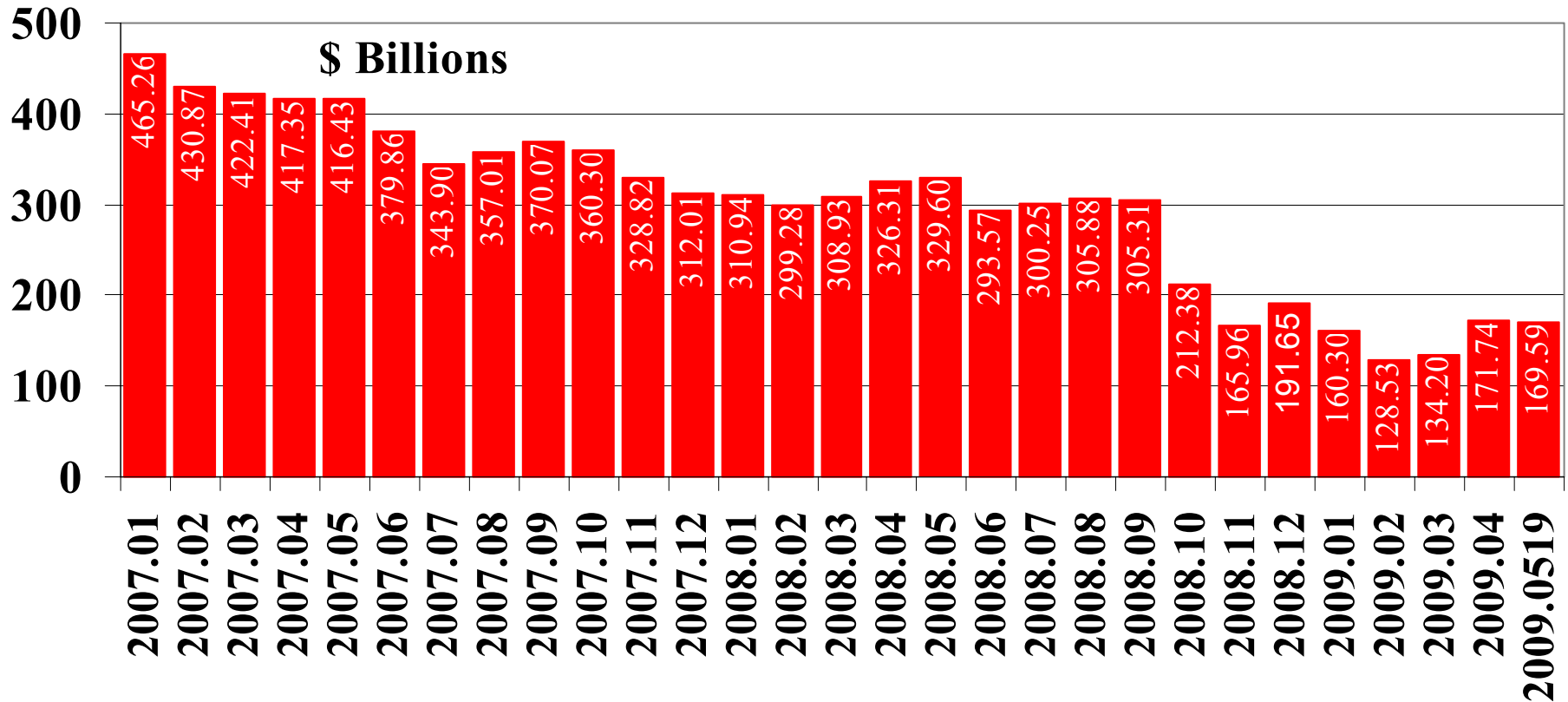
Source: *Greer Advisors calculated based
on initial data from Markit

CMBS/X – Implied R.E. Yields

Tranche	Yield Spd	Suboord	Weight D	Debt	Wght T	Total
AAA Sr*	81.71	29.76%	70.24%	75%	52.68%	2.27%
AAA Jr*	558.86	12.70%	17.06%	75%	12.80%	1.16%
AA*	1311.57	10.63%	2.07%	75%	1.55%	0.26%
A*	2288.06	8.00%	2.63%	75%	1.97%	0.52%
BBB*	3961.34	4.72%	3.28%	75%	2.46%	1.06%
BBB-*	4392.97	3.68%	1.04%	75%	0.78%	0.37%
BB*	10877.57	2.69%	0.99%	75%	0.74%	0.83%
Unrated	17400.00	0.00%	2.69%	75%	2.02%	3.58%
			100.00%			
Class A Prop.	4400.00	100%		25%	25.00%	11.88%
Swap Rate	350.00				Total	17.89%
Class B Prop.	17400.00	100%		25%	25.00%	44.38%
Note: Class A yield assumed ≈ BBB-, Class B assumed 1000 bps higher					Total	54.44%

Source: *Greer Advisors calculated

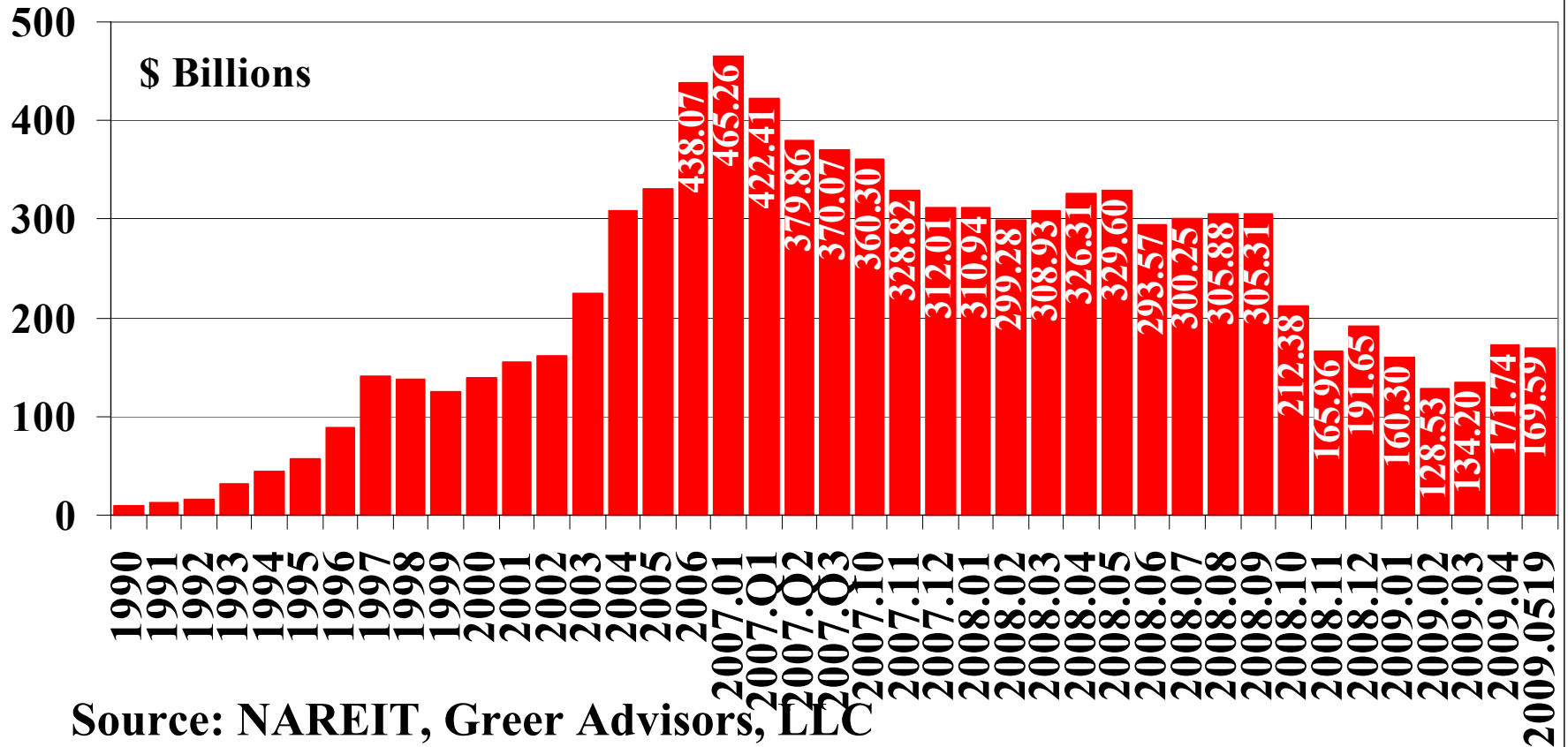
REITs Lose \$296 Billion or 64% of value



Source: NAREIT, Greer Advisors, LLC

Note: Includes Equity, Debt and Hybrid REITS as of 5/19/09

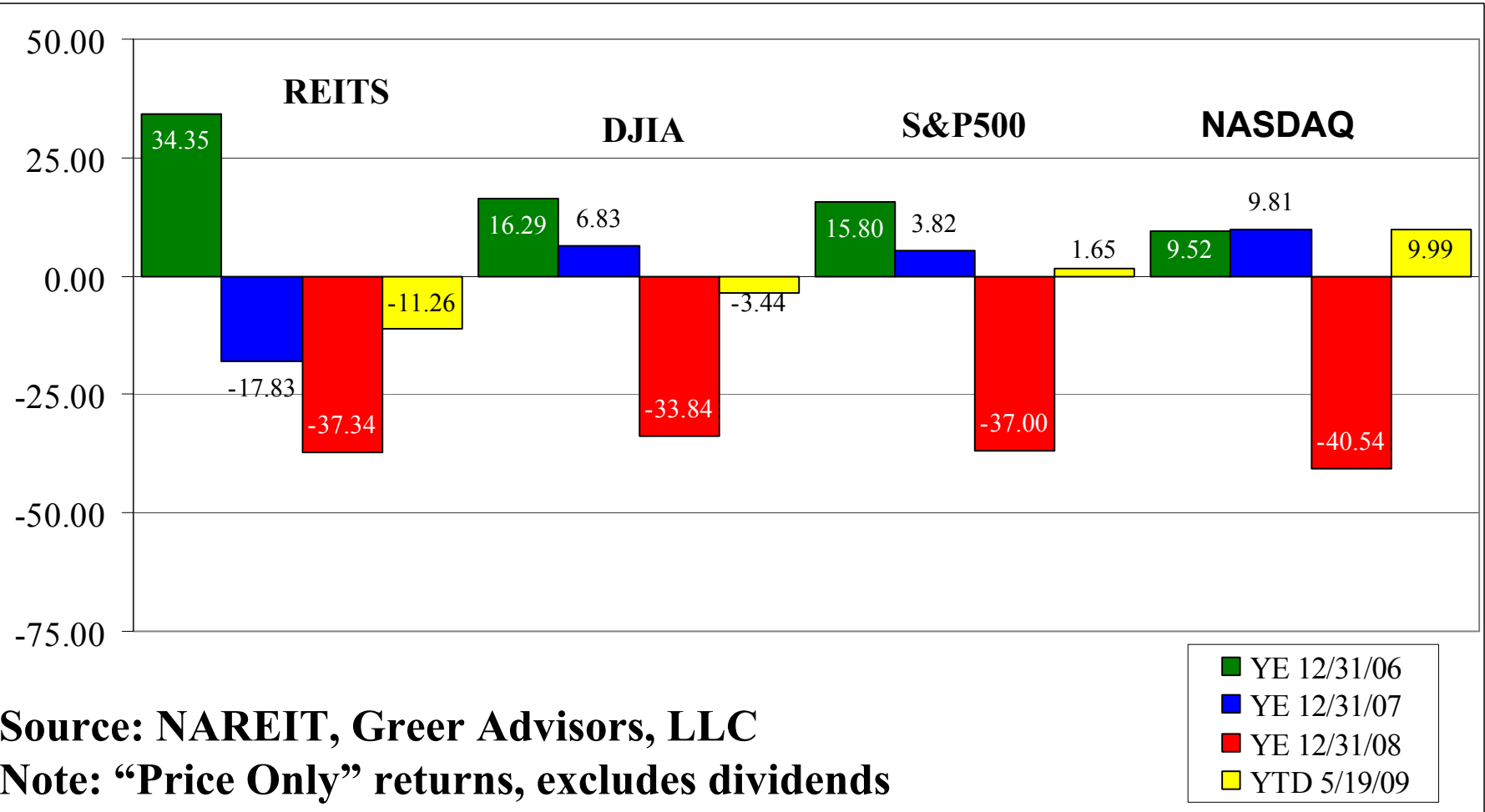
REIT Market Capitalization



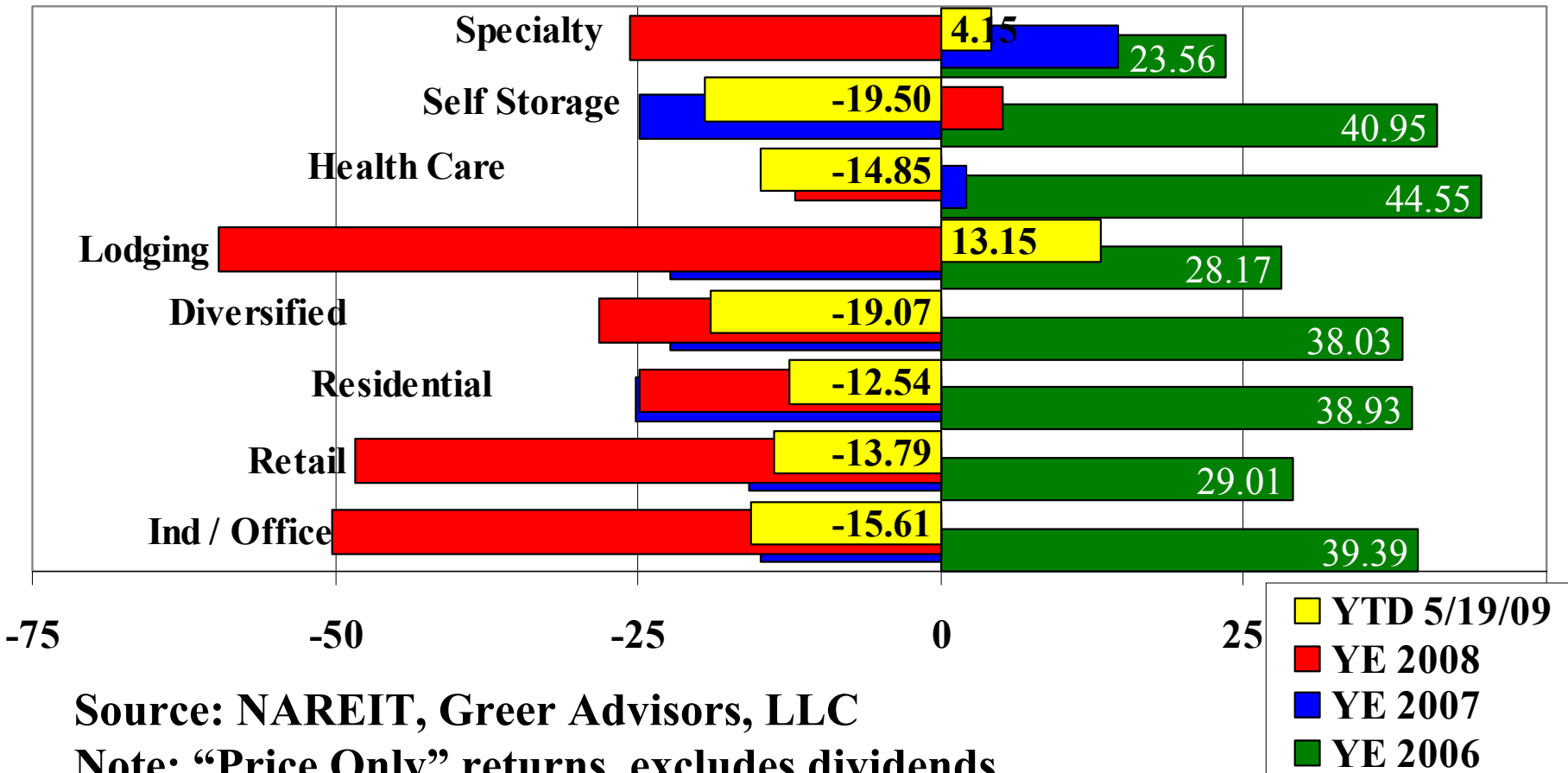
Source: NAREIT, Greer Advisors, LLC

Note: Includes Equity, Debt and Hybrid REITS as of 5/19/09

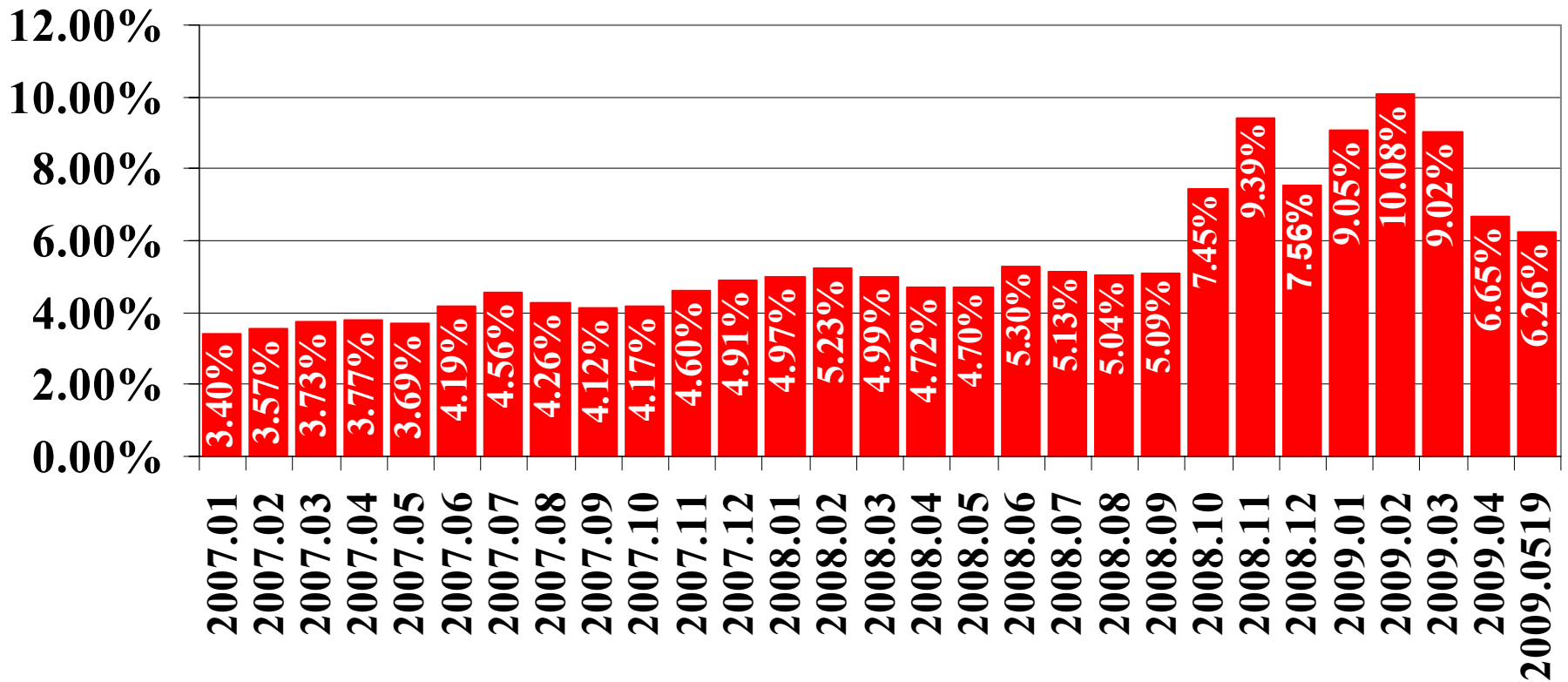
Benchmark Returns — Changes so Fast!



REIT Property Type Returns — Old vs. New



REIT Capitalization Rate Trends

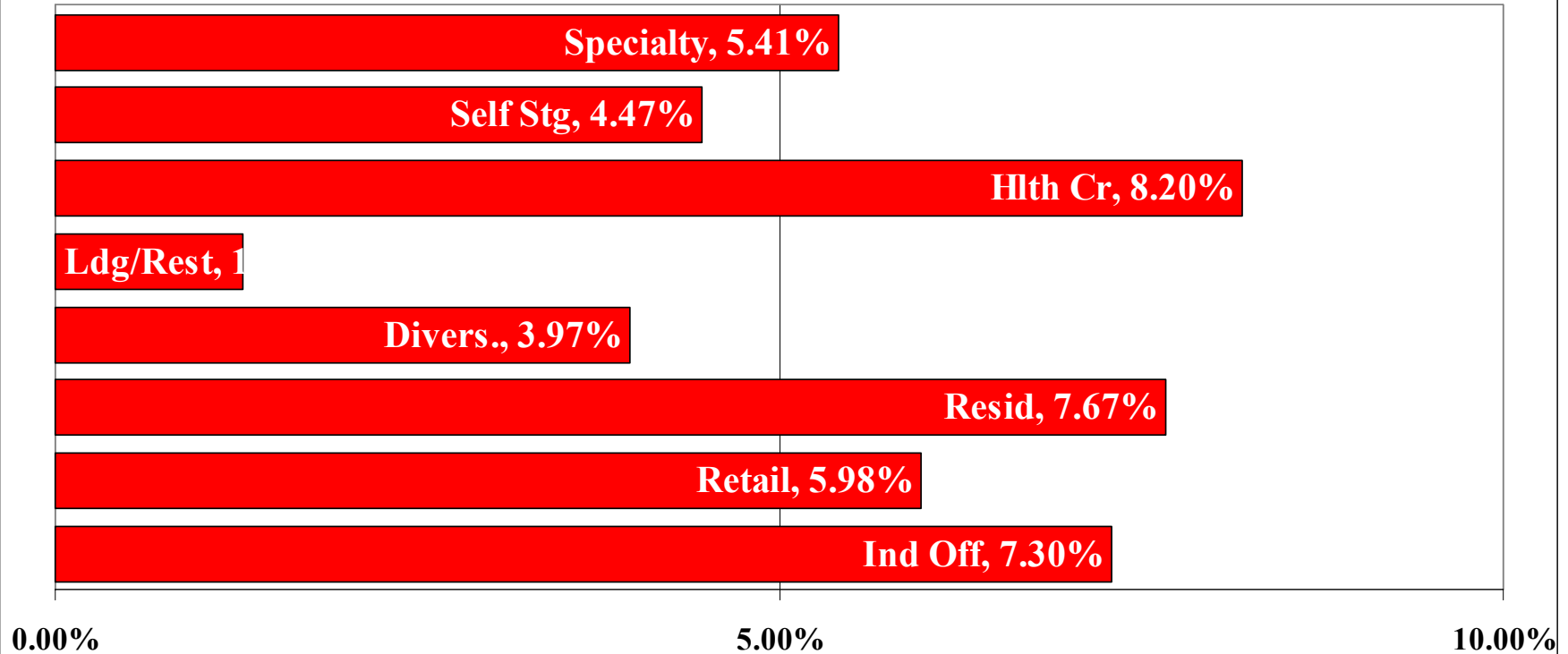


Source: NAREIT, Greer Advisors, LLC

Note: Dividend Yield from NAREIT “Equity Only” REIT Index

REIT “Spot” Cap Rates by Property Type

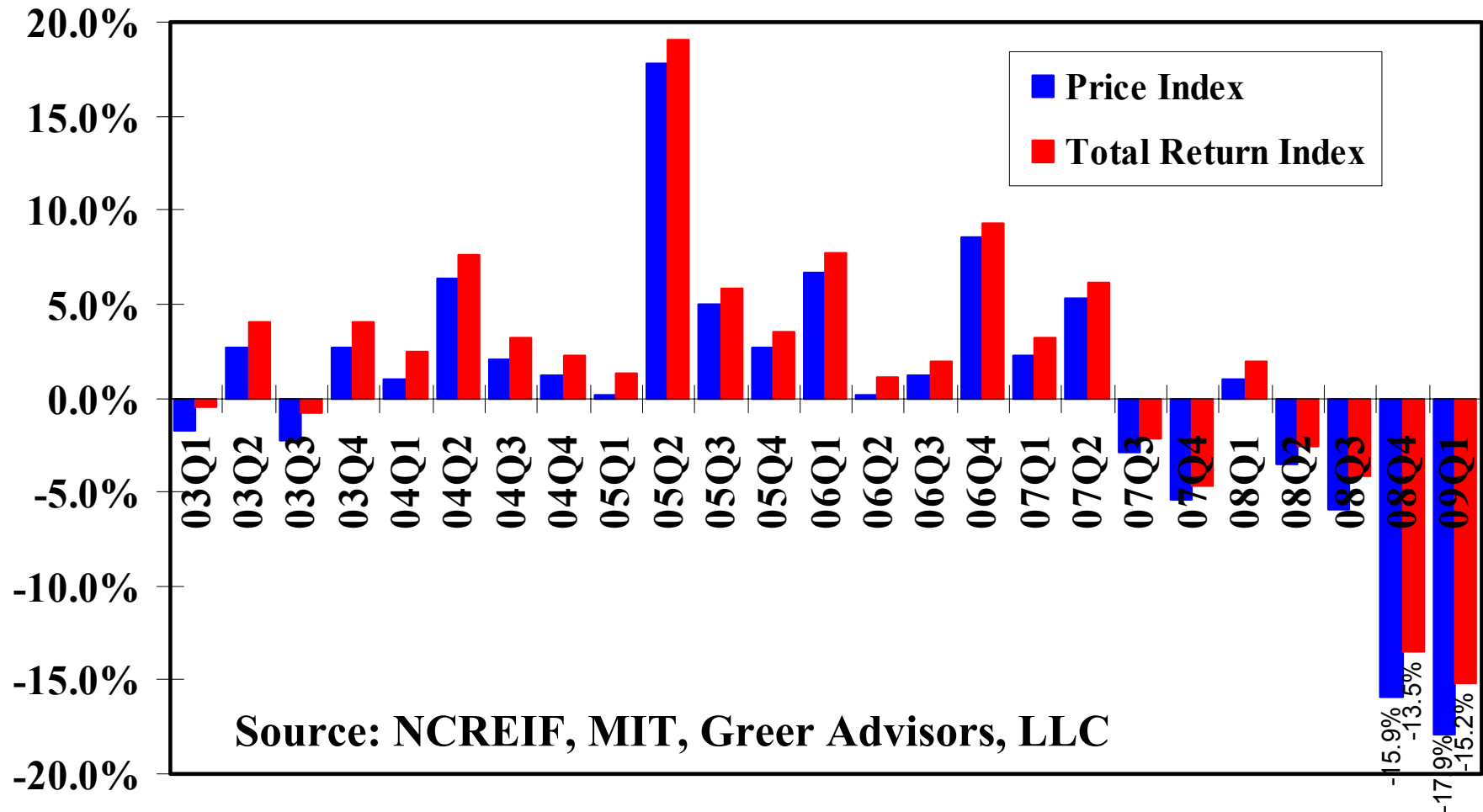
Dividend Yields per NAREIT Equity REIT Index



Source: NAREIT, Greer Advisors, LLC

Note: Dividend Yields as of 5/19/09, Overall = 6.26%

NCREIF 09.Q1 Continues Down



Value Fundamentals

CMBS Market is Effectively Broken = Opportunities

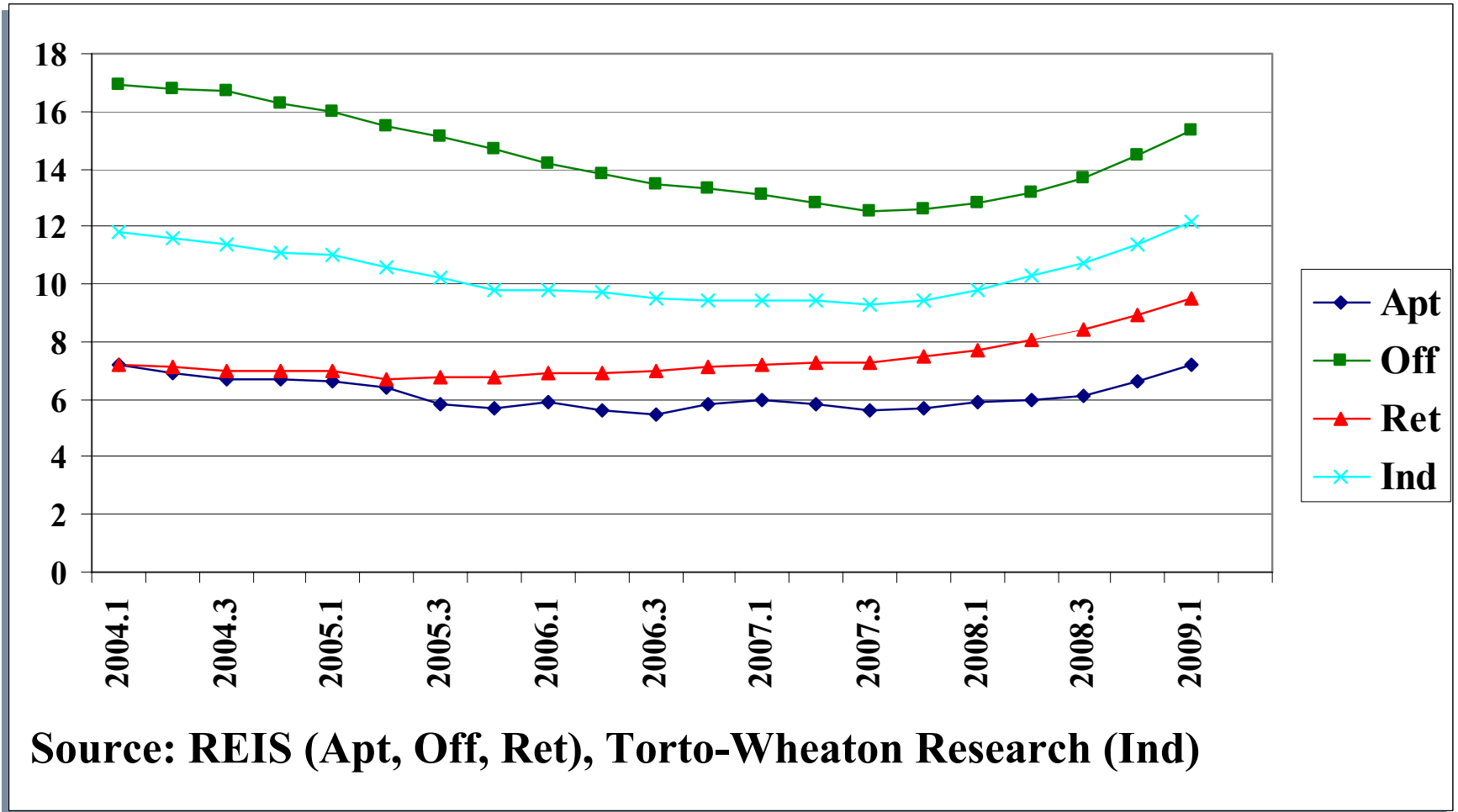
CMBS/CMBX Industry – Imply R.E. Yields Doubled

REITS are “Off” more than 50% = Opportunities

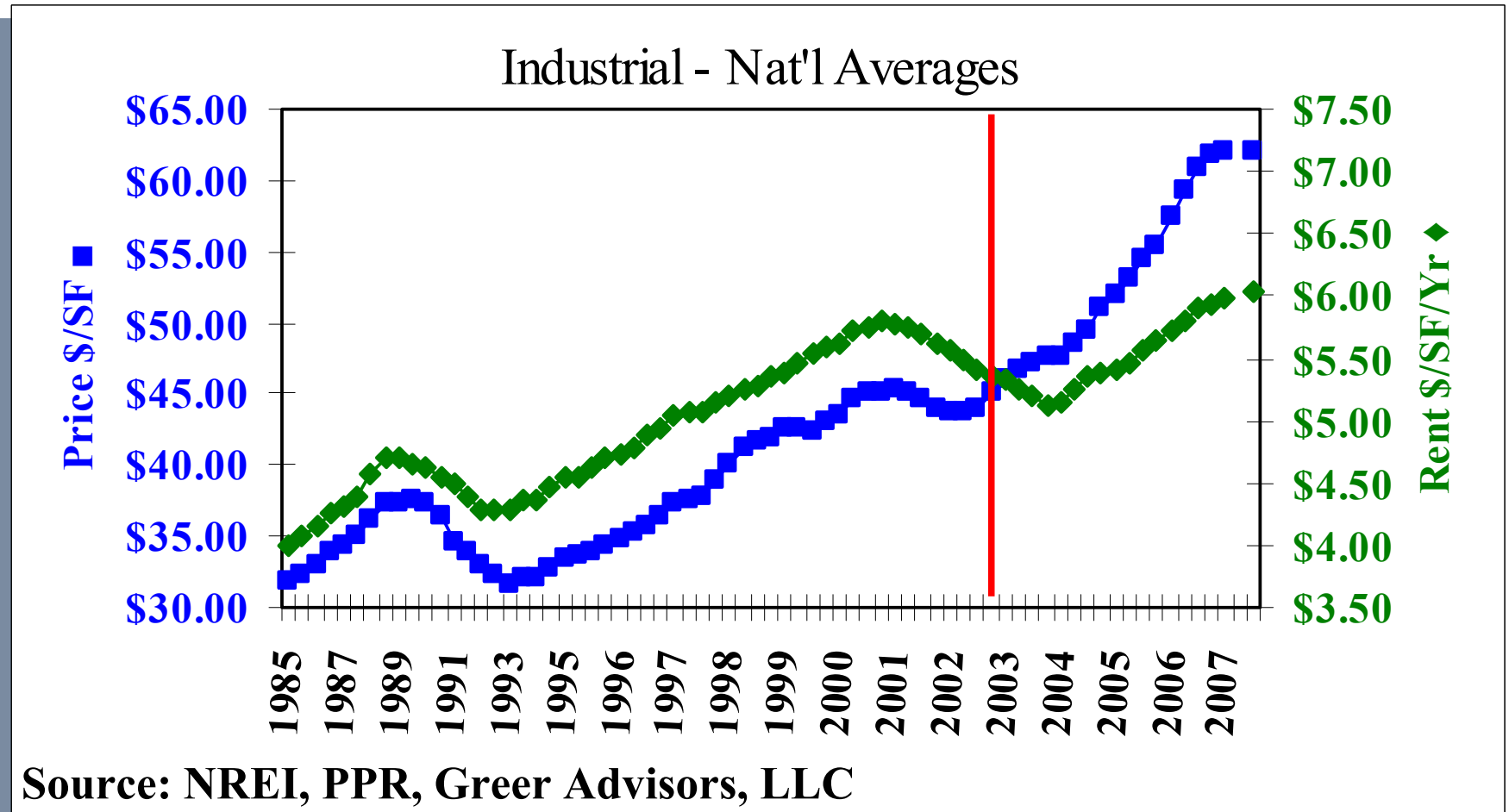
NCREIF is nearly Flat (down 2-3%)

Market Change brings Opportunities!

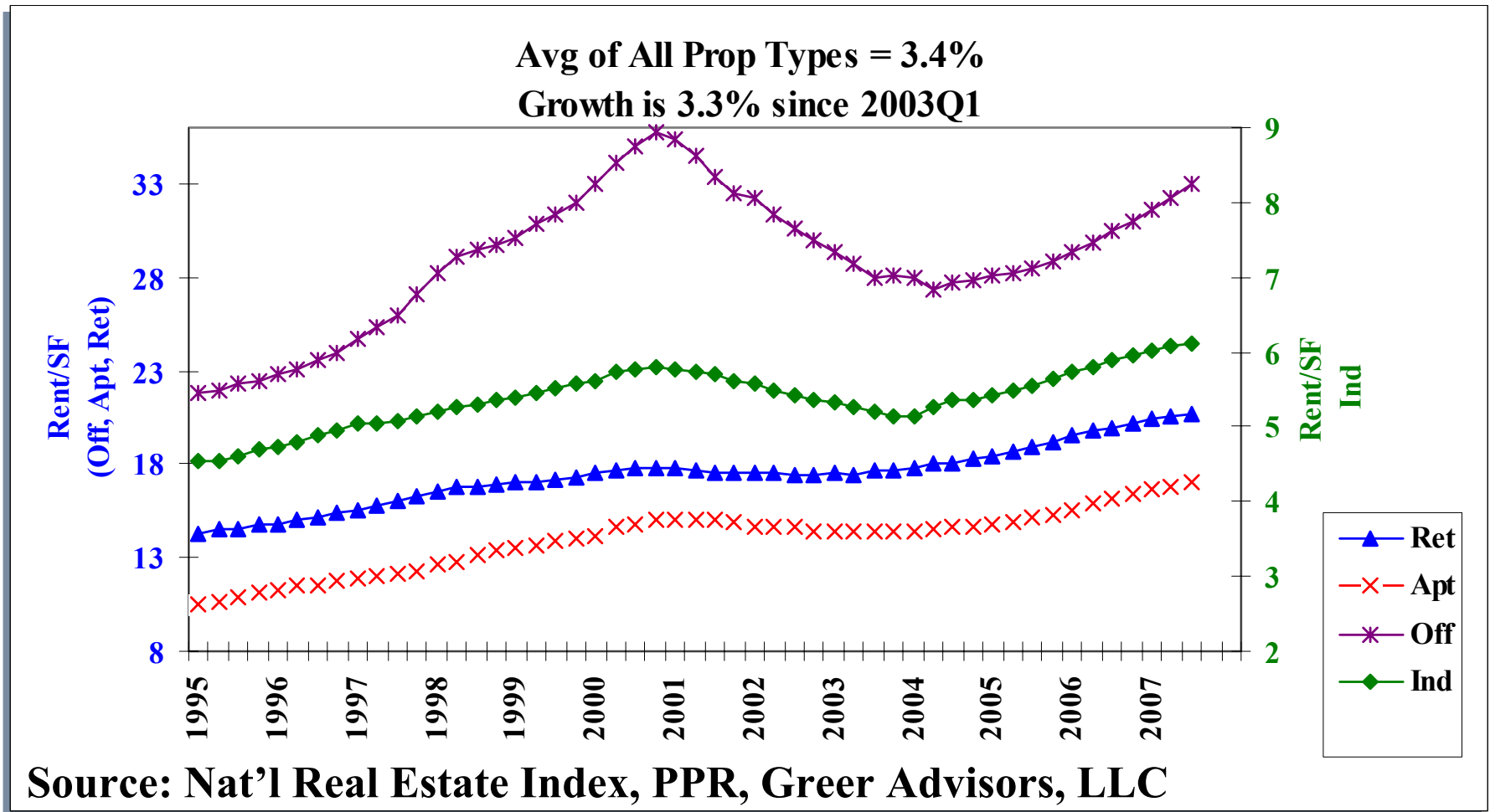
National Trend — Vacancy — thru '09Q1



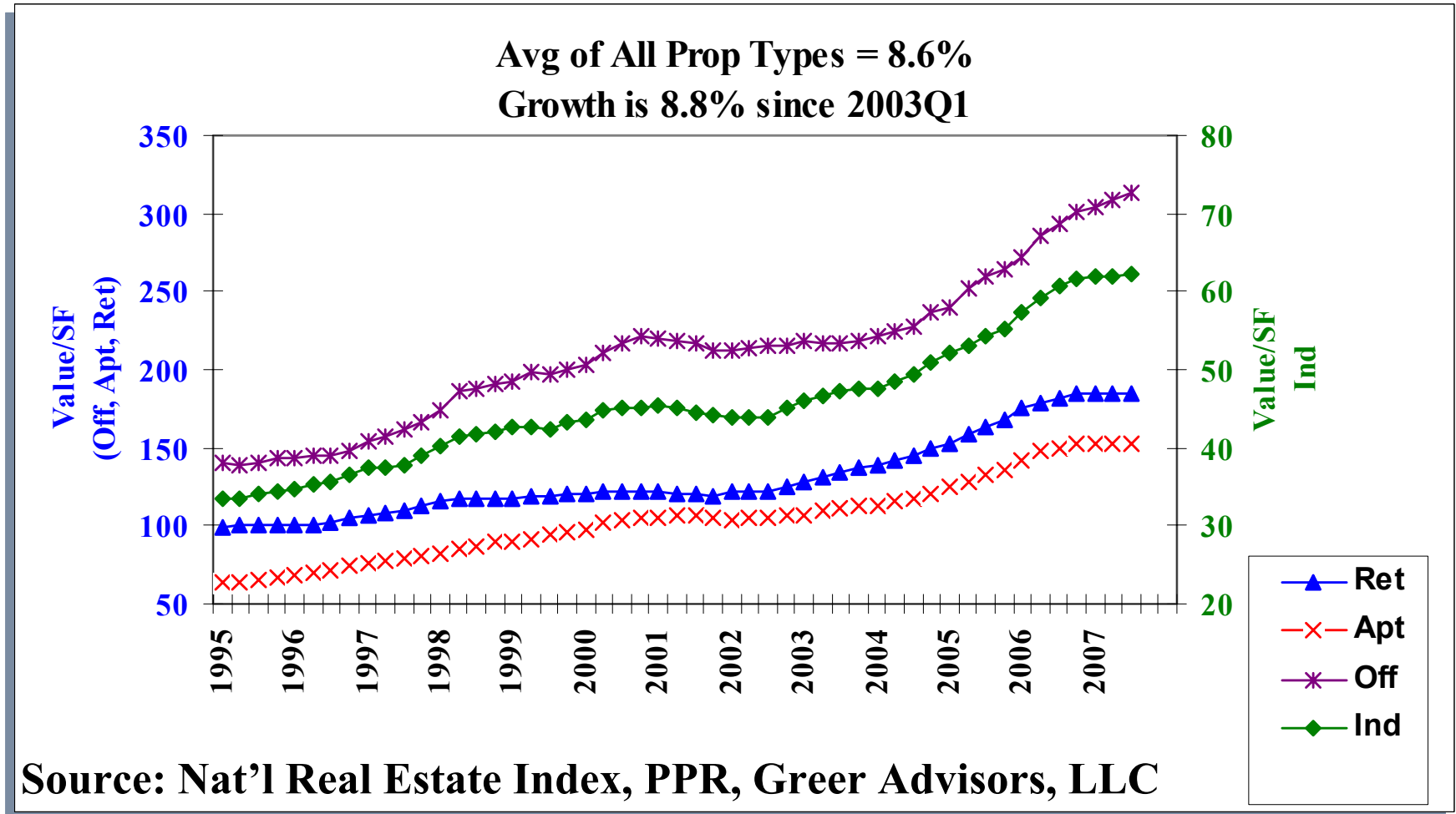
The Relationship Breaks in 2003



Market Trends — National Rents



Market Trends — National Values

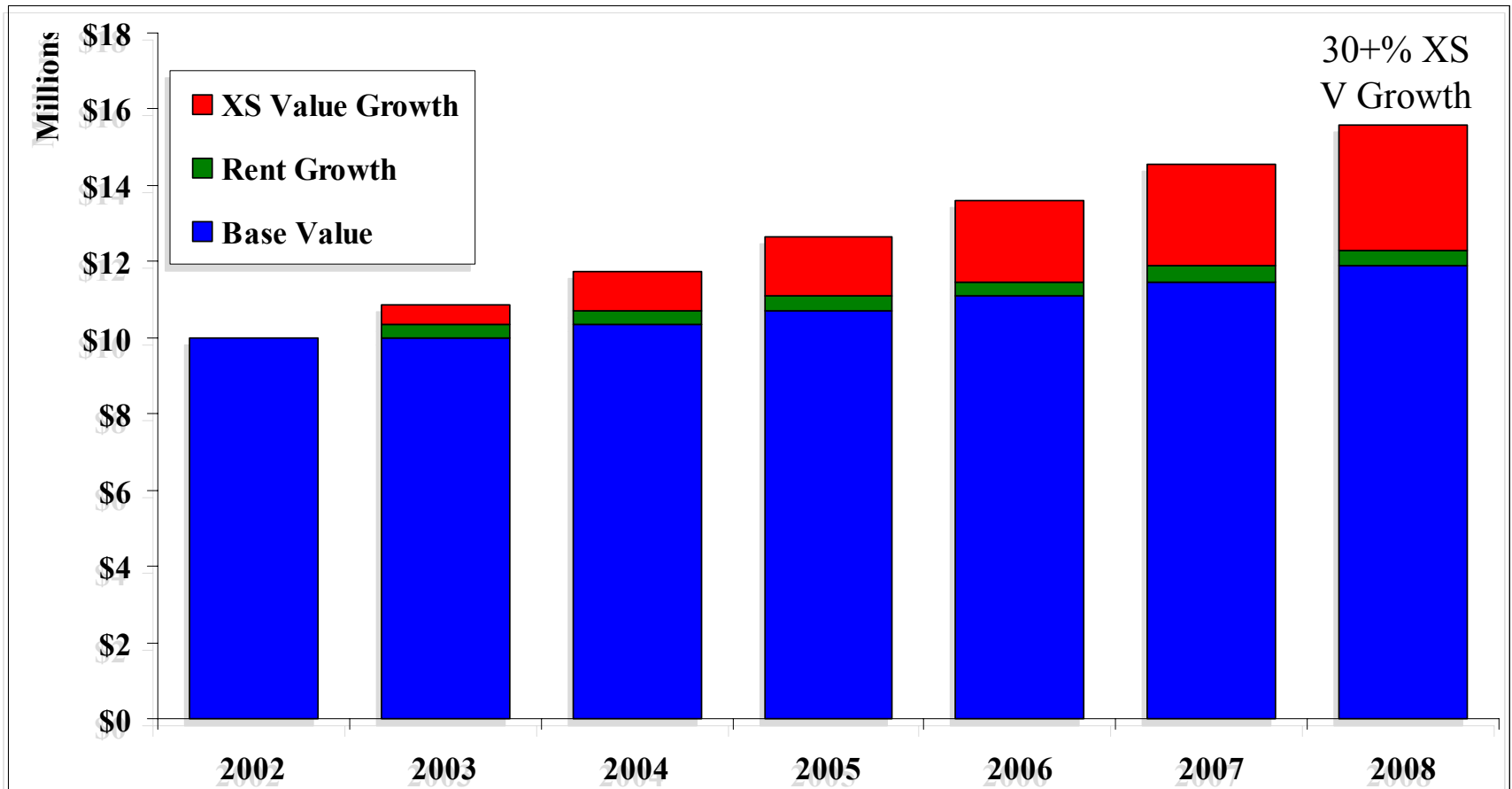


Growth Example — Value vs. Income

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%

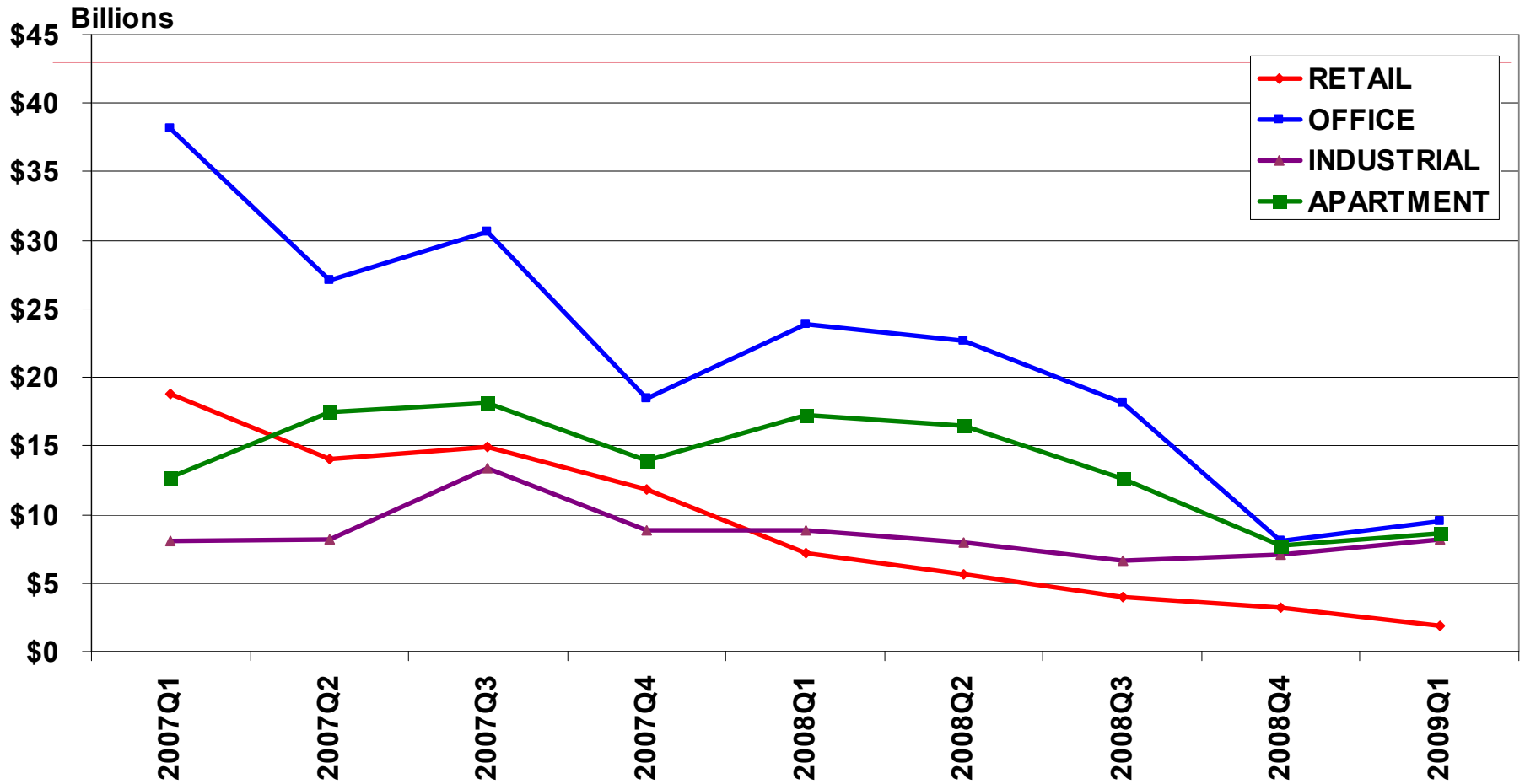
- Increase in value was only “interest rates” first 2 years. Momentum effect carried it further. What happens when it stops?

Rent versus Value Growth



Source: Greer Advisors, LLC

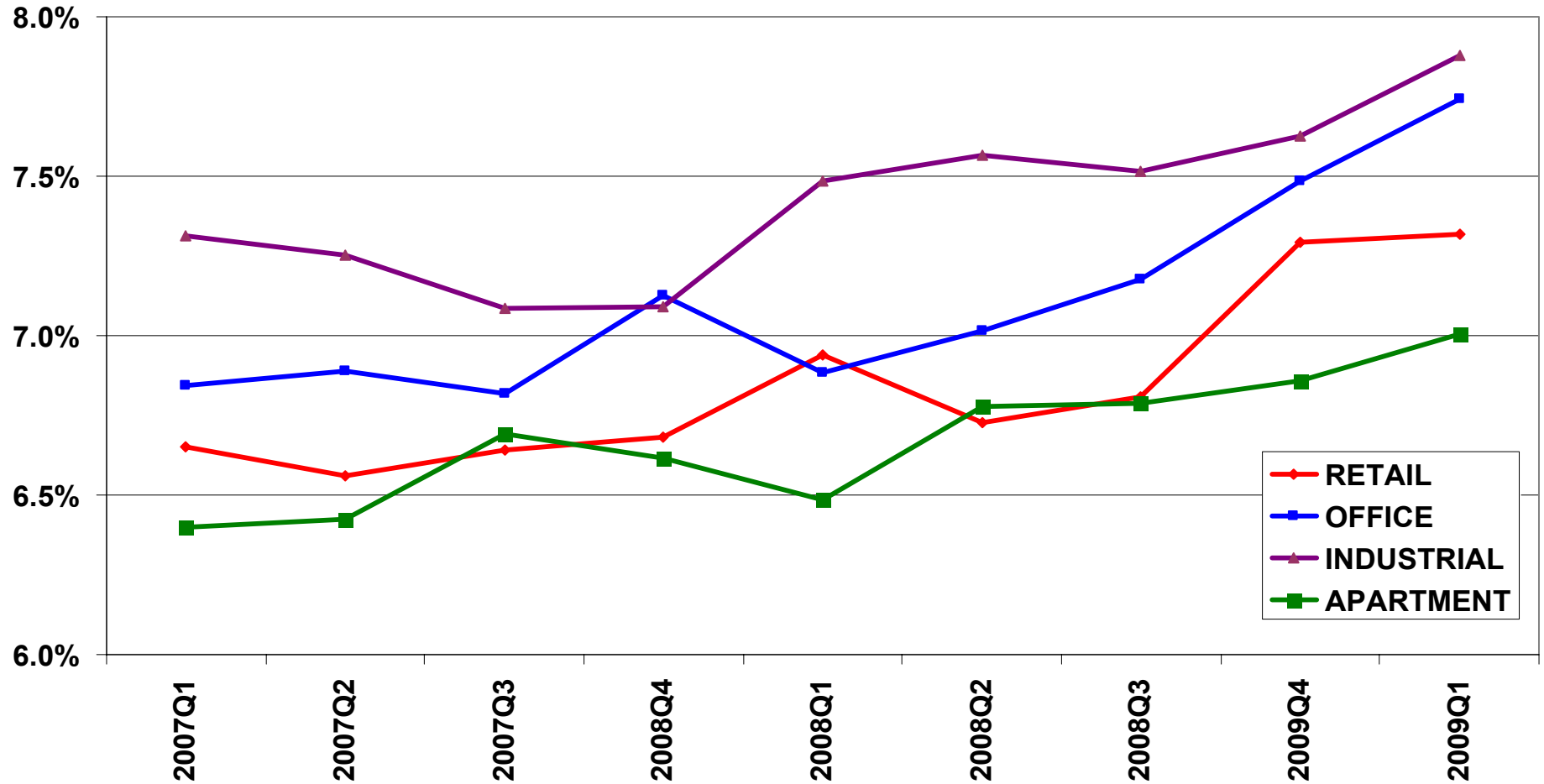
Sales Trends – Volume



Source: Real Capital Analytics, Greer Advisors

Greer Advisors, LLC

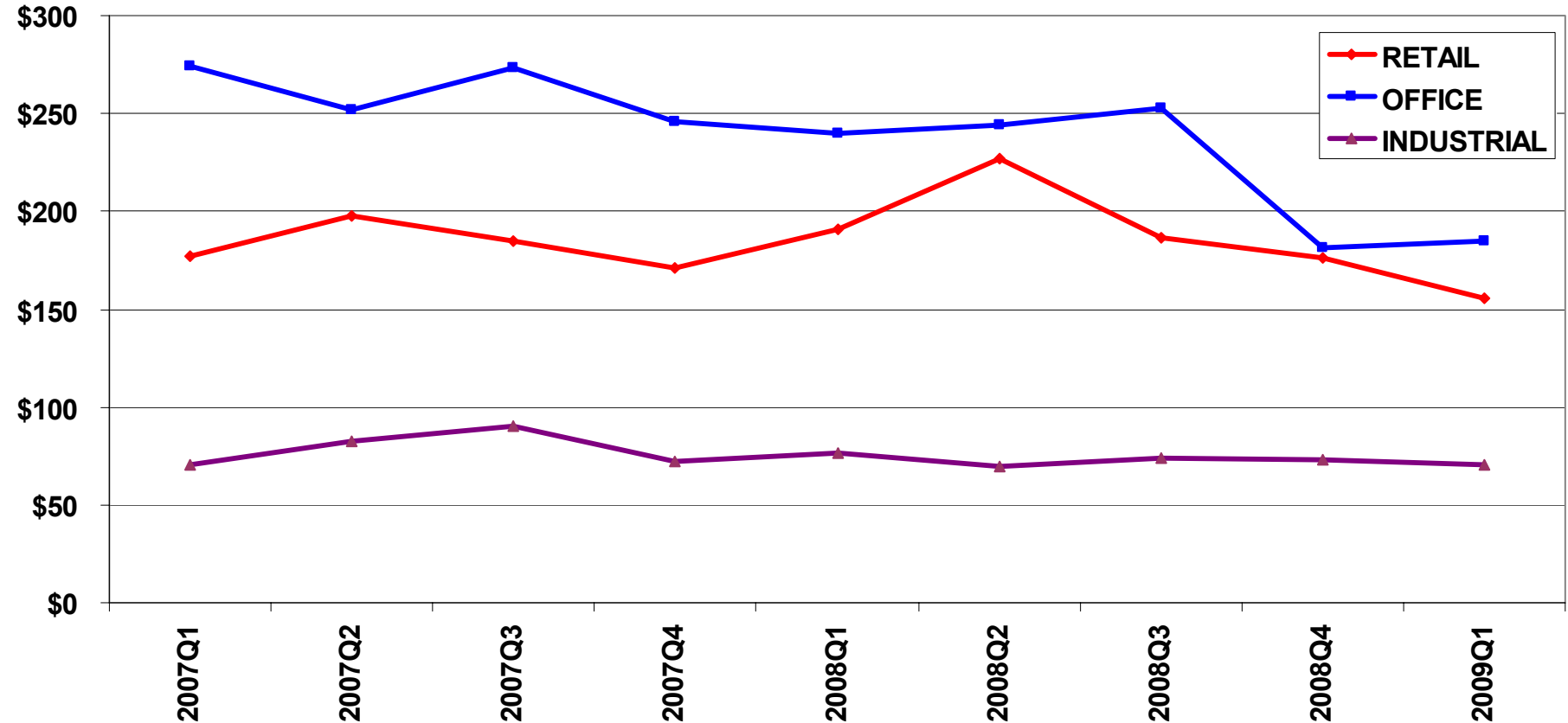
Sales Trends – Cap Rates



Source: Real Capital Analytics, Greer Advisors

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Sales Trends – Price per SF



Source: Real Capital Analytics, Greer Advisors

Quote of the Day

“...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

- CMBS Market – Yield Spreads are 10-100x higher than 1/07
- 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 5/21/2009

- 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, but might over-correct in the short run, say 10Yr +500 bps
- Rent Growth will Lag CPI growth by 0-5%
- Values will fall 5-15% from 2008-2012. Individual Market Performance will vary widely (10-30% difference in Top vs Bottom)
- Capitalization Rates will Rise 2-5% during 2008-2012 (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

- CDS Exposure under \$25 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 1-5% 1st-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 4/28/09 index stands at 39.2 (1985=100)
- Risk Curve (AAA Sr. vs BB) flattens to under 500 bps. As of 5/19/08, spread stands near 10,800 bps.

Questions / Answers

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