Capital Markets and Commercial Real Estate

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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
  - During the last few years, has accounted for slightly less than 40% of all commercial real estate lending.
- 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?

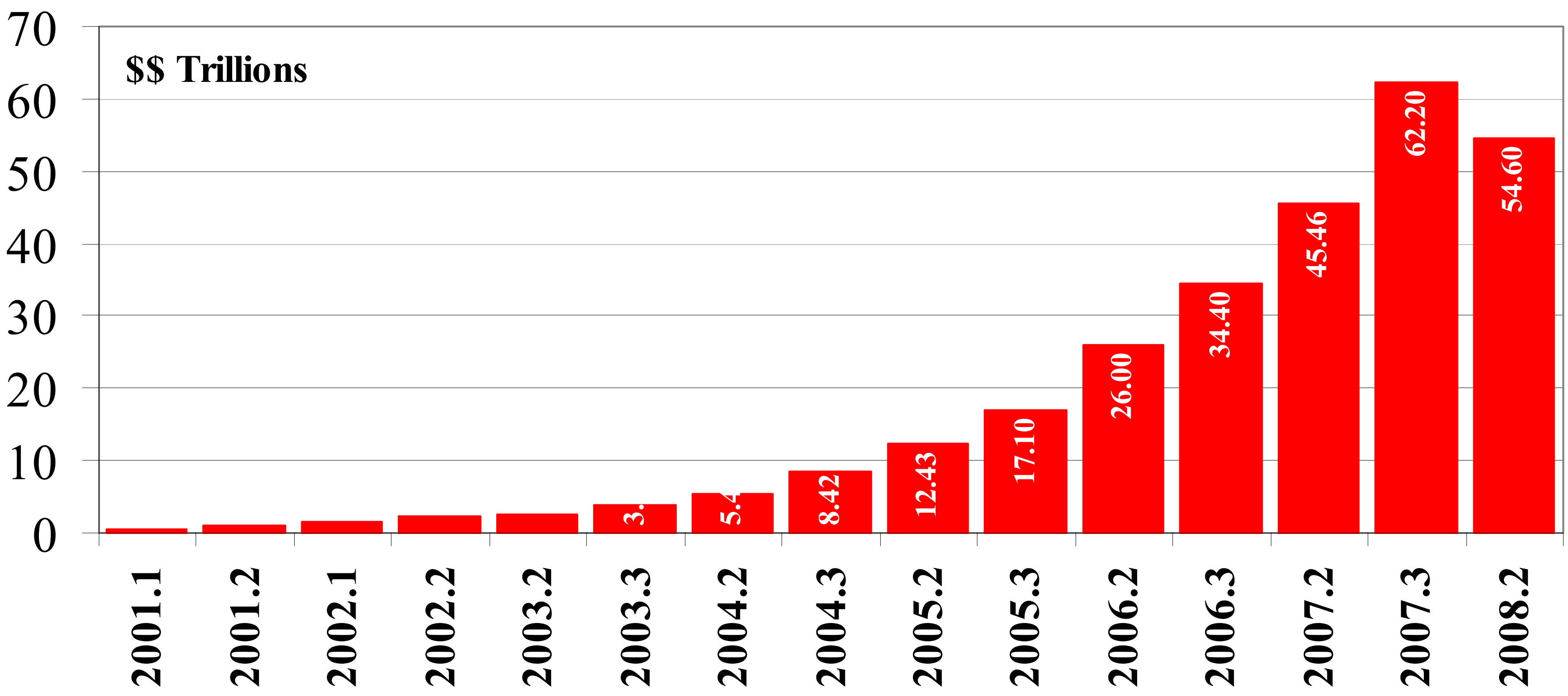
Credit Default Swap

- 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.

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

Credit Default Swaps

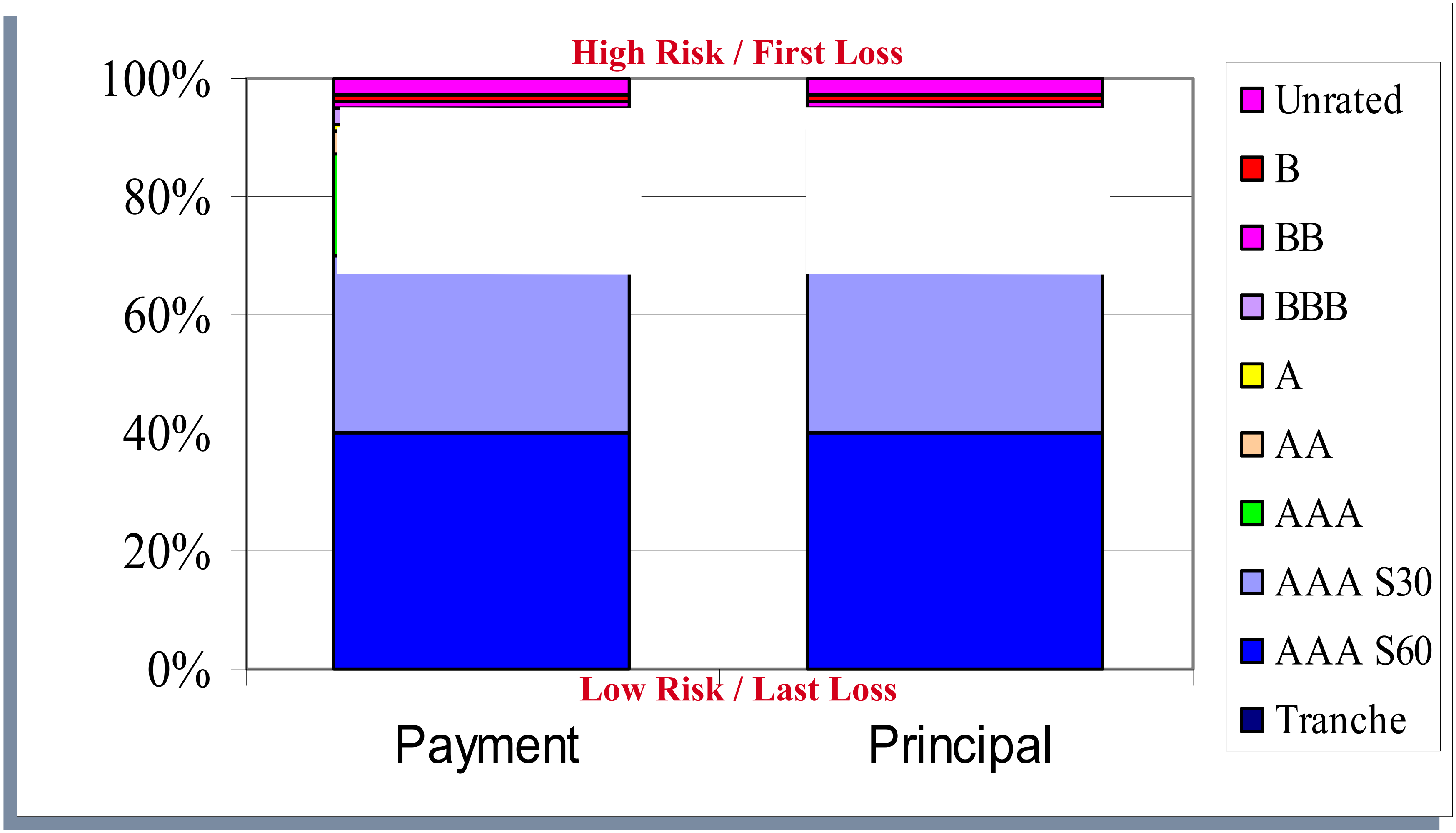


Source: ISDA Semi-Annual Voluntary Survey, Greer Consulting

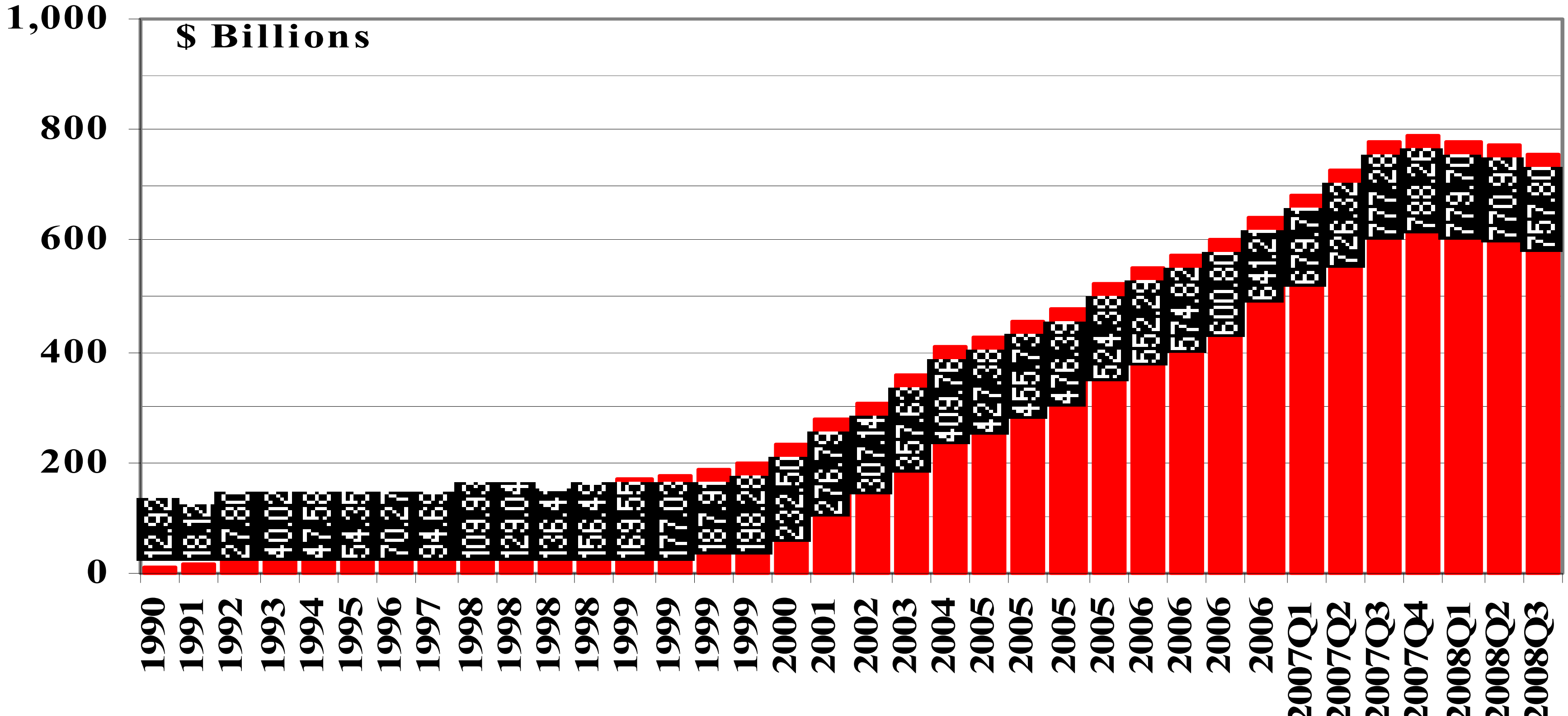
Example of a "Typical" CMBS

		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%		
THEN	NOW			THEN	NOW
2007.01	2009.01	Rating (10Y)	Subordination	2007.01	2009.01
0.0020	0.0300	AAA S60	60.0%	4.200%	7.000%
0.0025	0.0900	AAA S30	30.0%	4.250%	13.000%
0.0030	0.1600	AAA	12.5%	4.300%	20.000%
0.0040	0.2100	AA	9.0%	4.400%	25.000%
0.0100	0.2600	A	8.0%	5.000%	30.000%
0.0175	0.3500	BBB	5.0%	5.750%	39.000%
0.0250	0.4550	BB	4.0%	6.500%	49.500%
0.0400	0.8700	B	2.5%	8.000%	91.000%
0.0500	1.3100	Unrated	0 to <2.5%	9.000%	135.000%
			Weighted Average Yield	4.494%	17.780%
		Implied Annual Excess Return		0.256%	-13.030%
Note: Assumes 1% swap, agency, trust, servicer and other fees.				$6,400,000	-$325,750,000

Subordination Graph



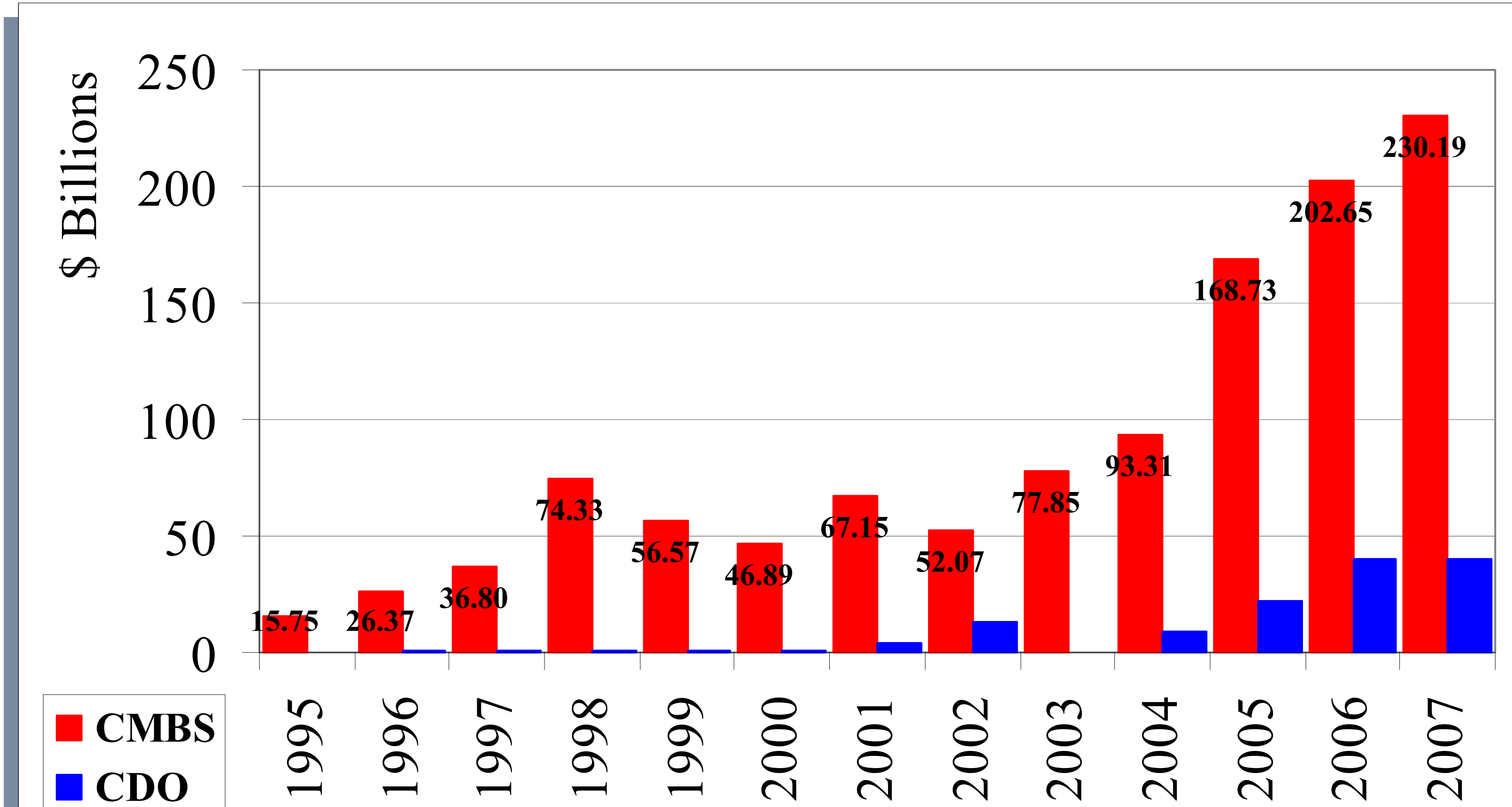
CMBS Outstandings in U.S. - Grows



Source: Federal Reserve, Flow of Funds, Z1-L.126-NSA, Greer Consulting

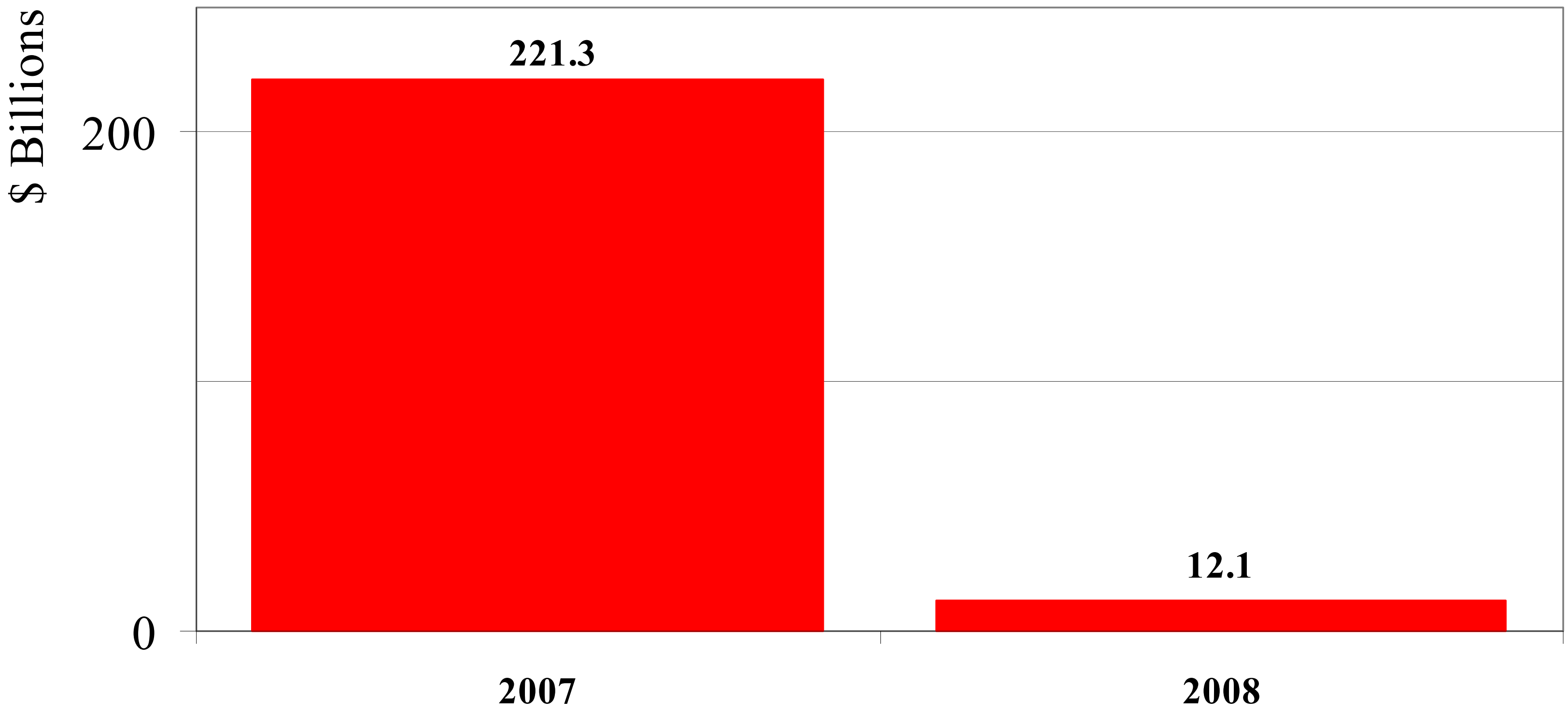
Note: Total of Multi-Family and Commercial Mortgage Asset Backed Securities

CMBS Issuance in U.S. - Skyrockets



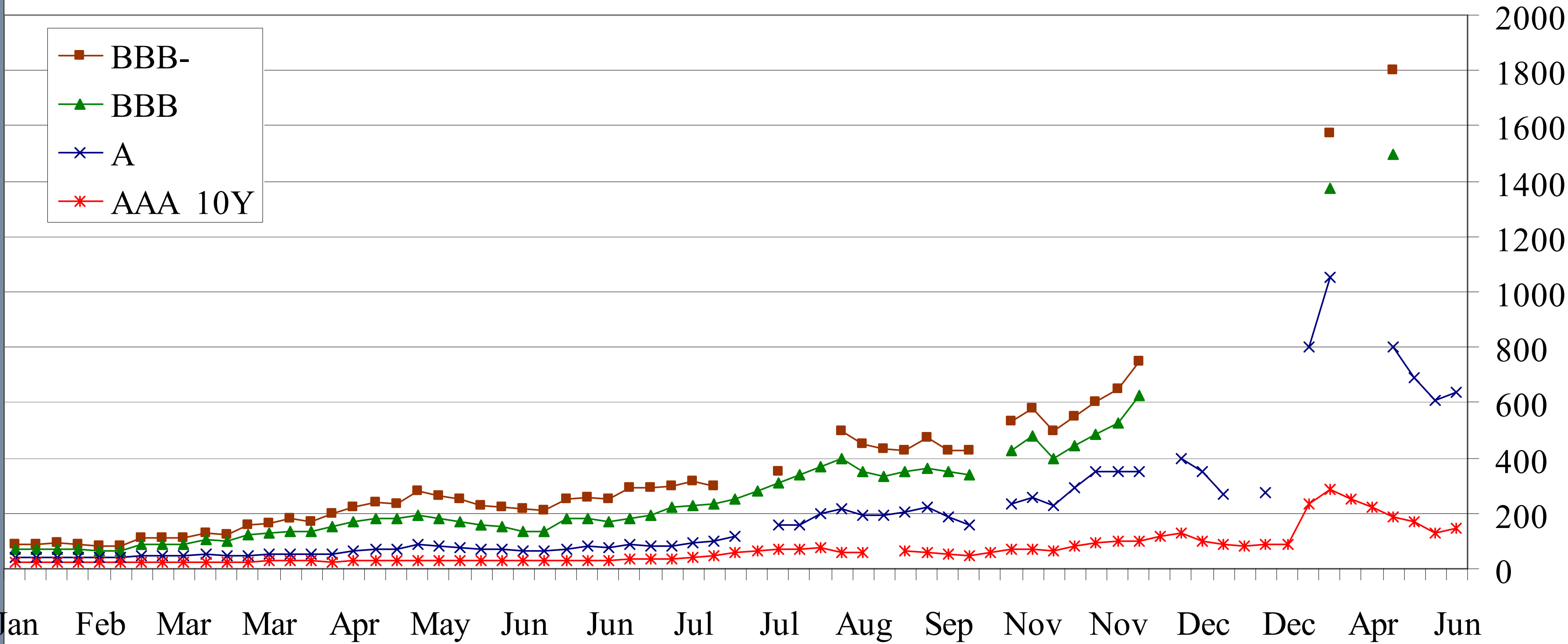
Source: CM Alert, Greer Consulting

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



Source: CM Alert, Greer Consulting

CMBS Yield Spreads (Spread to Swap)

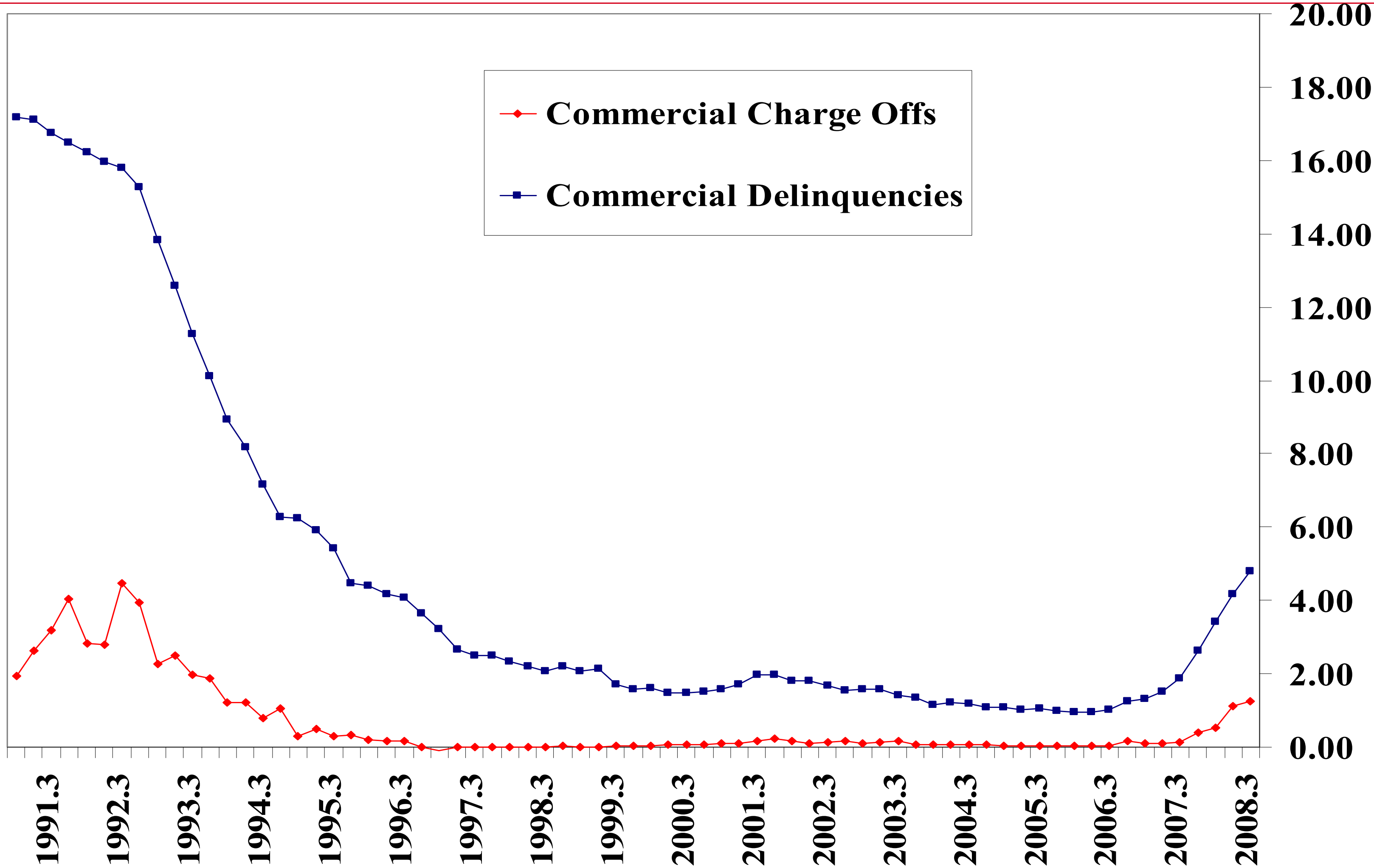


Source: CM Alert, Greer Consulting

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, Greer Consulting

Synthetic CMBX Yields (Spreads to Swaps)

Tranche *	Yield over Swaps* 1/26/09	Approx CMBS 1/2007 **	Rise in Yields**
CMBX.5 AAA	591.17	20.0	571.17
CMBX.5 AAA AJ	1,550.17	30.0	1,520.17
CMBX.5 AA	2,074.67	45.0	2,029.67
CMBX.5 A	2,601.67	55.0	2,546.67
CMBX.5 BBB	3,496.50	75.0	3,421.50
CMBX.5 BBB-	3,695.67	85.0	3,610.67
CMBX.5 BB	4,550.33	105.0	4,445.33

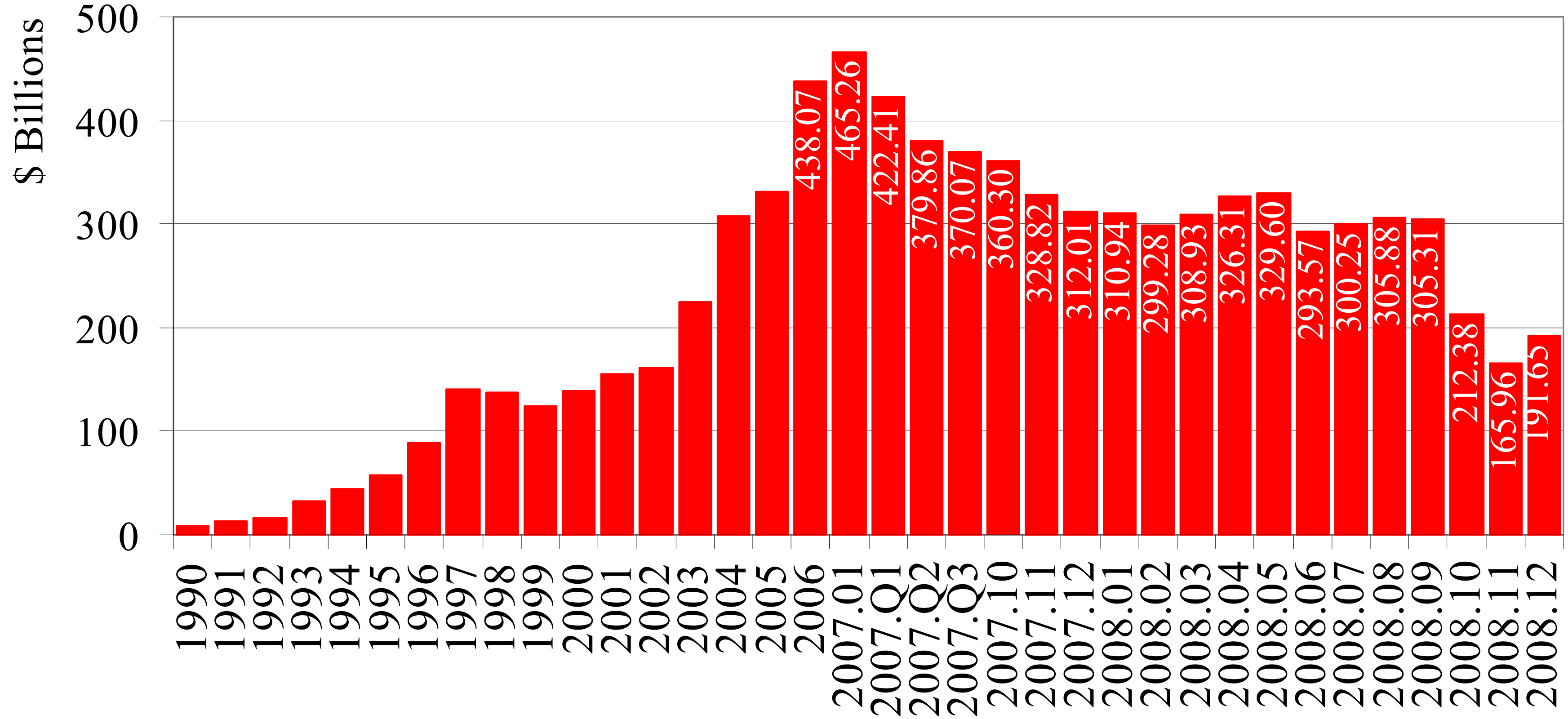
Source: *Markit, **Greer Consulting

CMBS/X – Implied R.E. Yields

Tranche	Yield Spd	Suboord	Weight D	Debt	Wght T	Total
AAA Sr*	591.17	29.76%	70.24%	75%	52.68%	4.96%
AAA Jr*	1550.17	12.70%	17.06%	75%	12.80%	2.43%
AA*	2074.67	10.63%	2.07%	75%	1.55%	0.38%
A*	2601.67	8.00%	2.63%	75%	1.97%	0.58%
BBB*	3496.50	4.72%	3.28%	75%	2.46%	0.95%
BBB-*	3695.67	3.68%	1.04%	75%	0.78%	0.32%
BB*	4550.33	2.69%	0.99%	75%	0.74%	0.36%
Unrated	5400.00	0.00%	2.69%	75%	2.02%	1.16%
			100.00%			
Class A Prop.	3700.00	100%		25%	25.00%	10.13%
Swap Rate	350.00				Total	20.05%
Class B Prop.	5400.00	100%		25%	25.00%	14.38%
Note: Class A yield assumed ≈ BBB-, Class B assumed 1000 bps higher					Total	25.51%

Source: *Markit, Greer Consulting

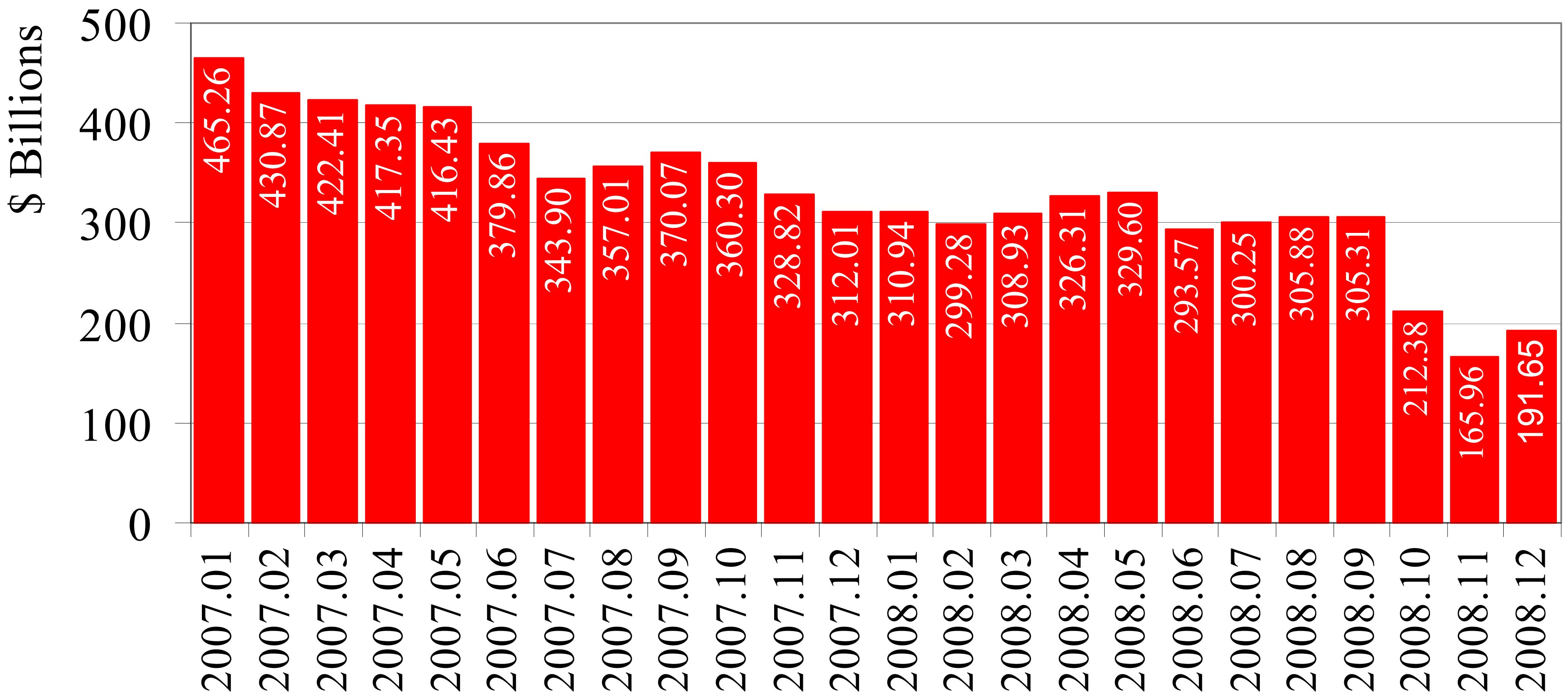
REIT Market Capitalization



Source: NAREIT, Greer Consulting

Note: Includes Equity, Debt and Hybrid REITS

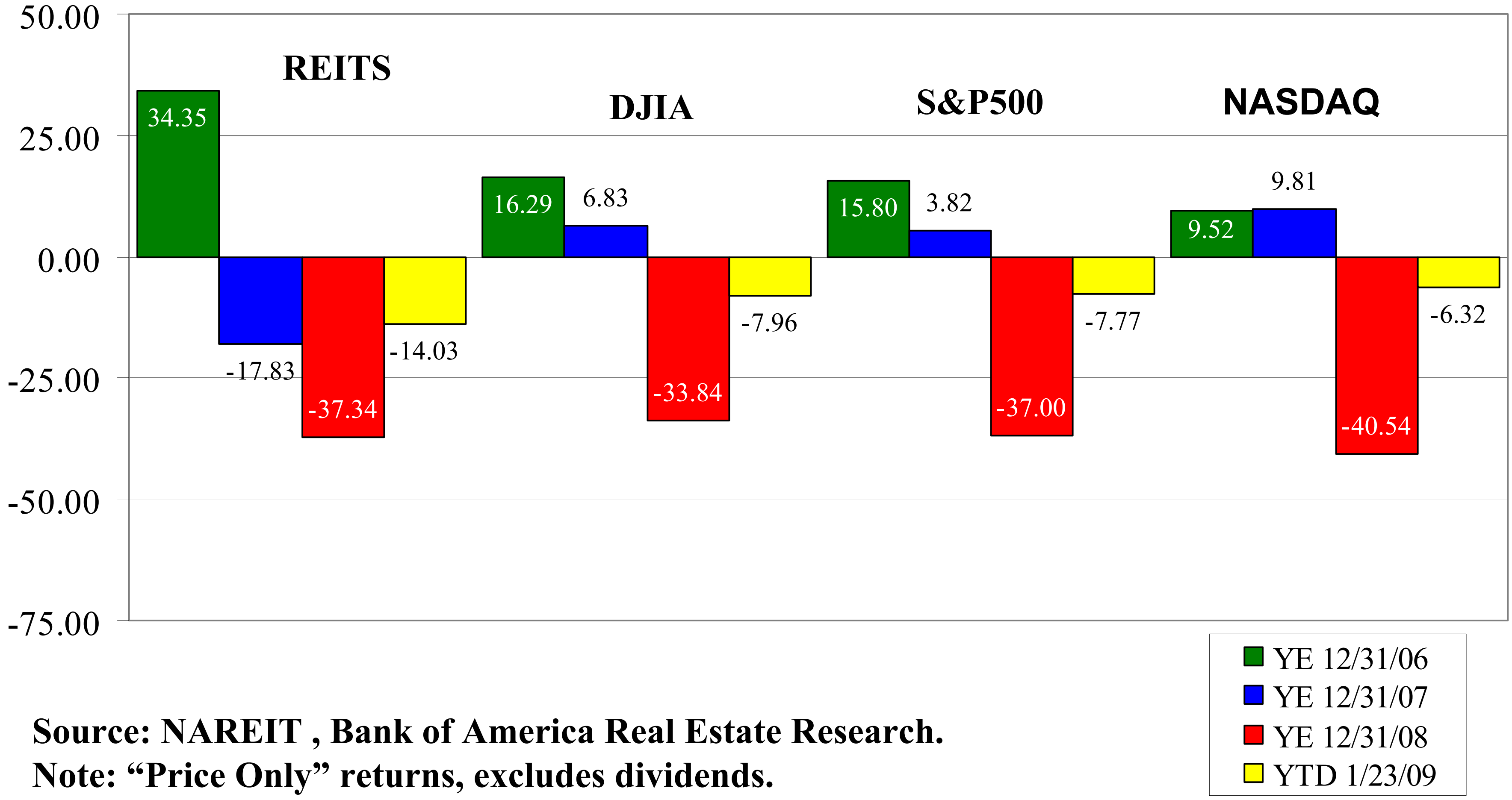
REITs Lose $274 Billion or 59% of value



Source: NAREIT, Greer Consulting

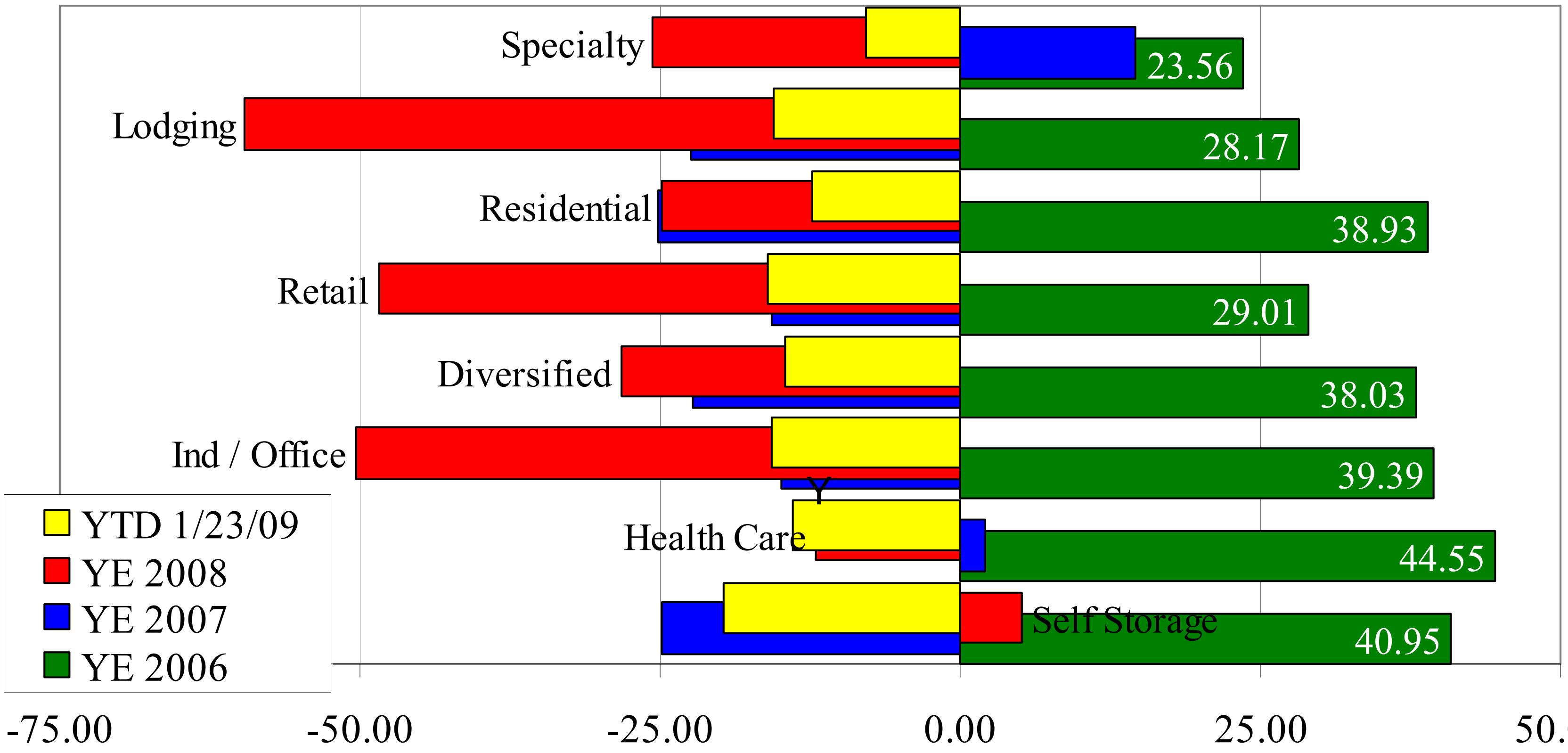
Note: Includes Equity, Debt and Hybrid REITS

Benchmark Returns — Changes so Fast!



Source: NAREIT , Bank of America Real Estate Research.
Note: "Price Only" returns, excludes dividends.

REIT Property Type Returns — Old vs. New



Source: NAREIT, Greer Consulting, Note: "Price Only" returns, excludes dividends.

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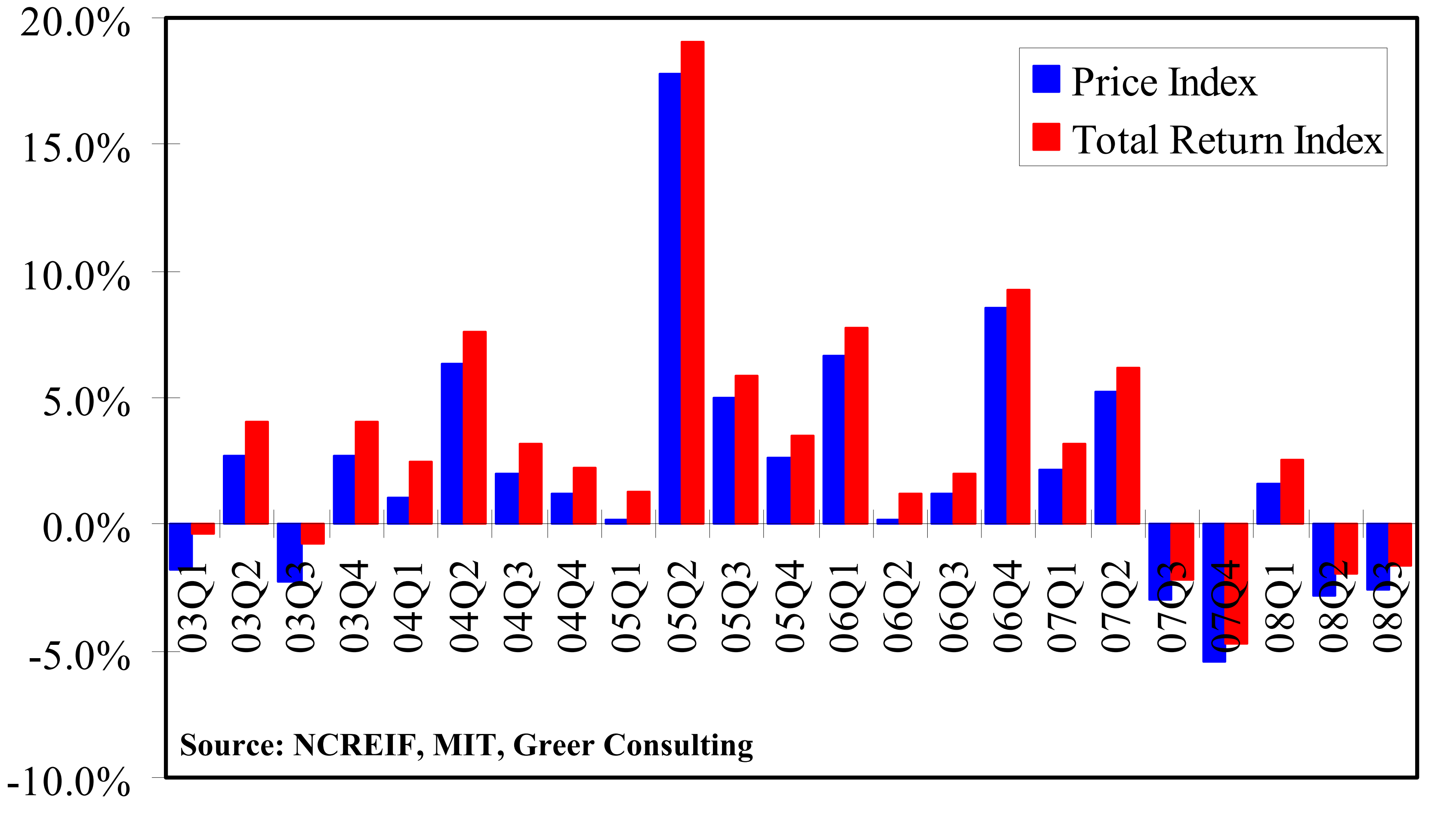
NCREIF 08.Q3 Price Down/ Total Down



Value Fundamentals

CMBS Market is Effectively Broken = Opportunities

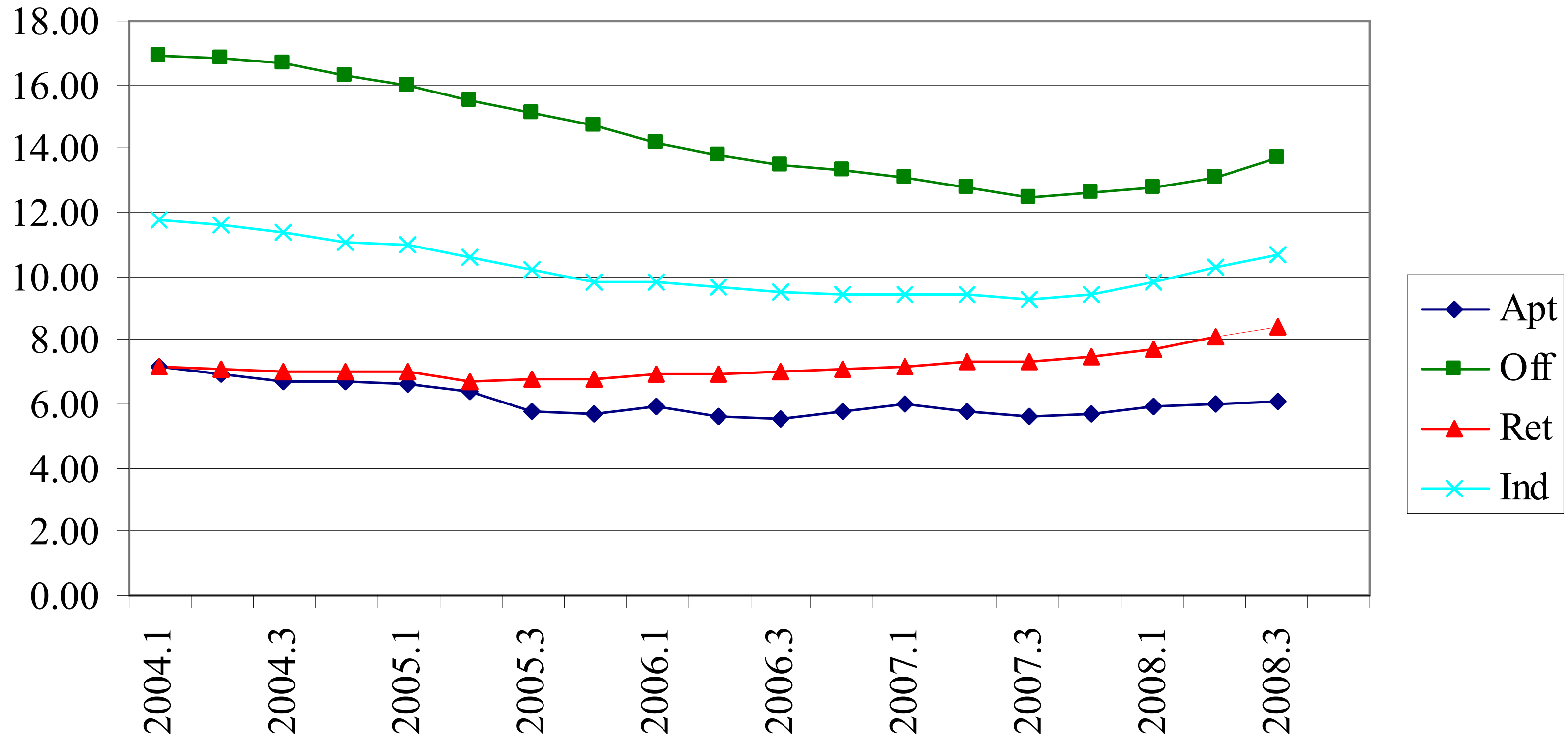
CMBS/CMBX Industry – Imply R.E. Yields Doubled

REITS are “Off” more than 50% = Opportunities

NCREIF is nearly Flat (down 2-3%)

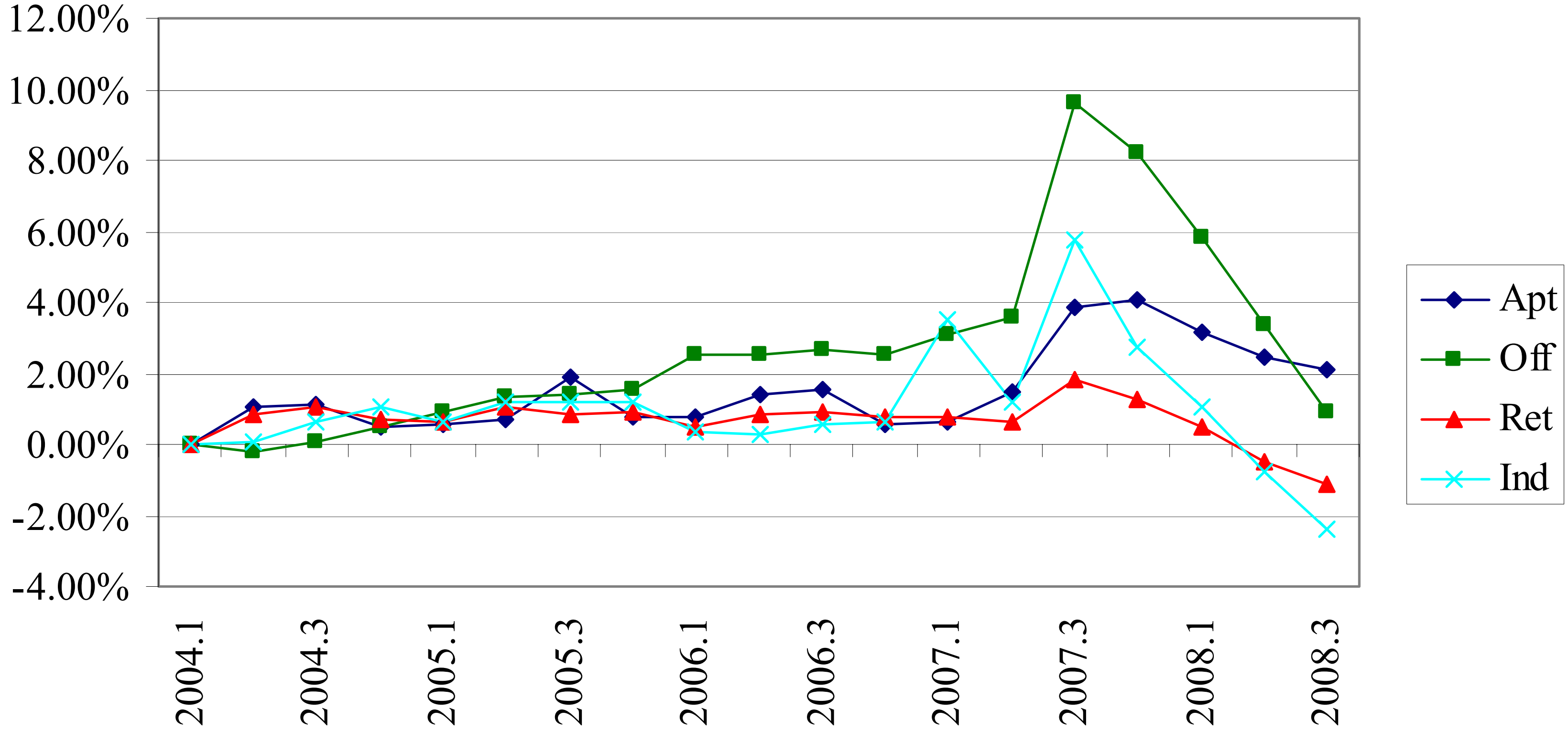
Market Change brings Opportunities!

National Trend — Vacancy



Source: Torto-Wheaton Research, REIS, Greer Consulting

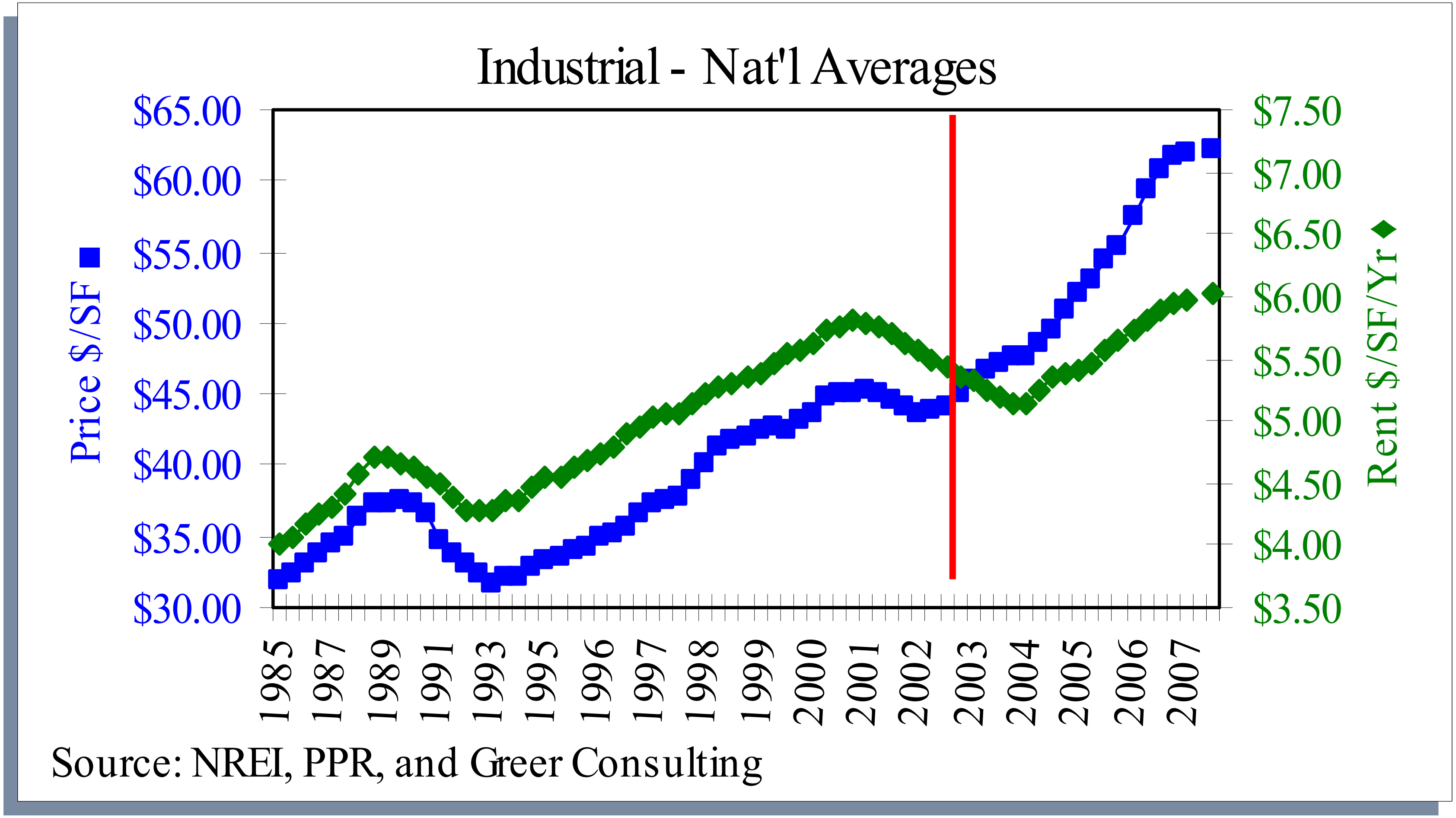
Realized Rents



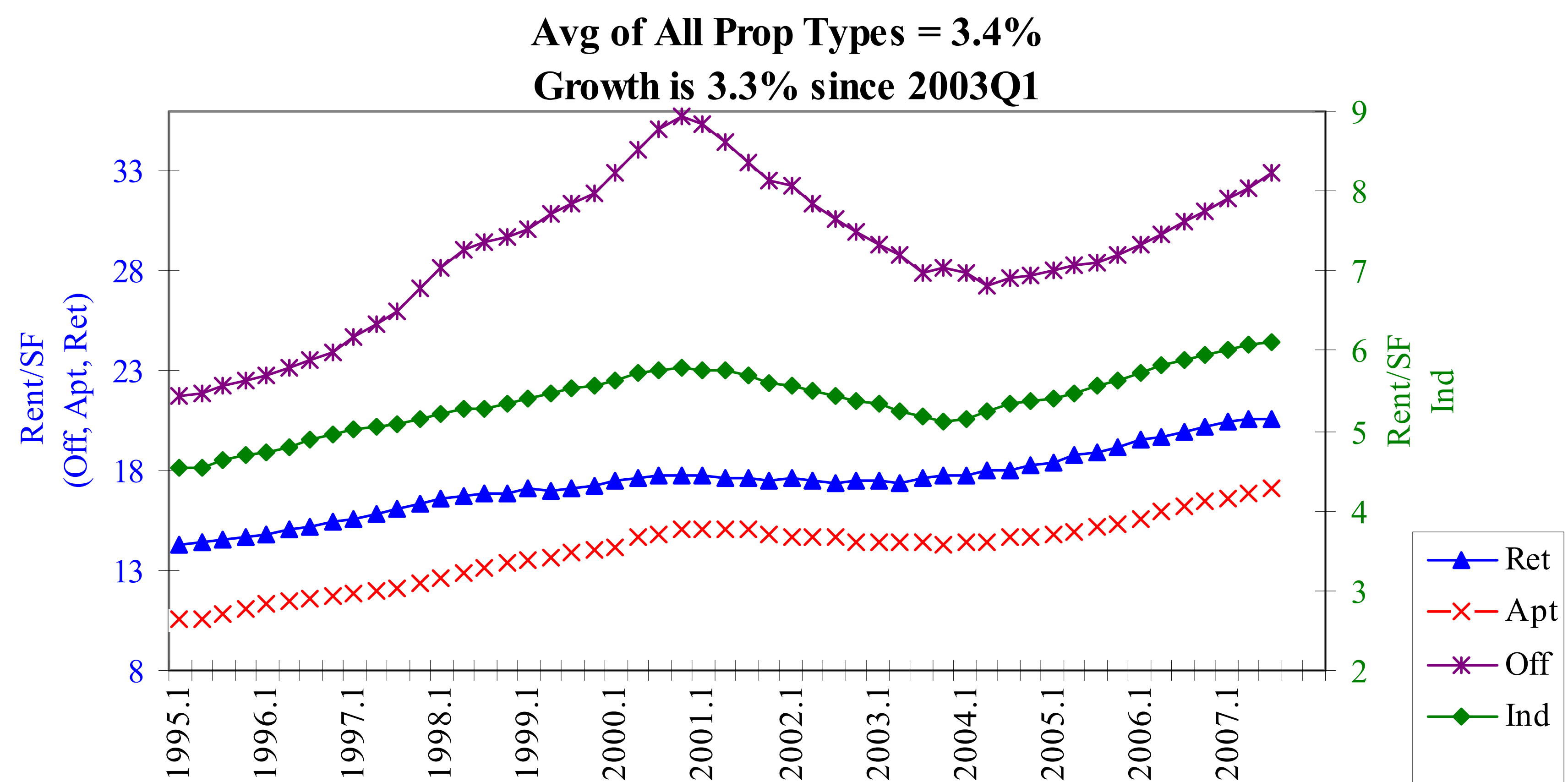
Source: Torto-Wheaton Research, REIS, Greer Consulting

*Realized rent is area occupancy times area rent.

The Relationship Breaks in 2003



Market Trends — National Rents



Sources: National Real Estate Index, Property & Portfolio Research, Greer Consulting

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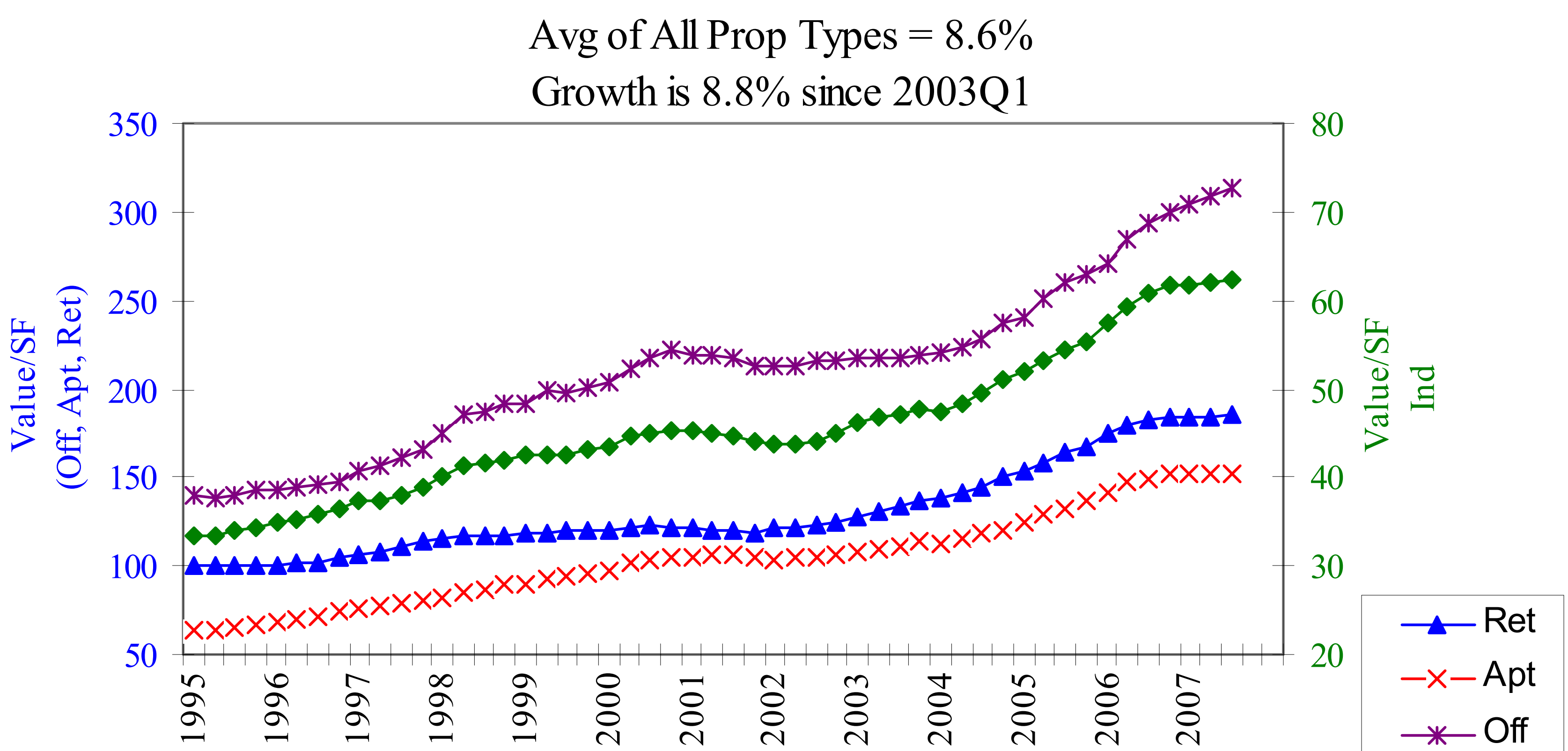
Market Trends — National Values



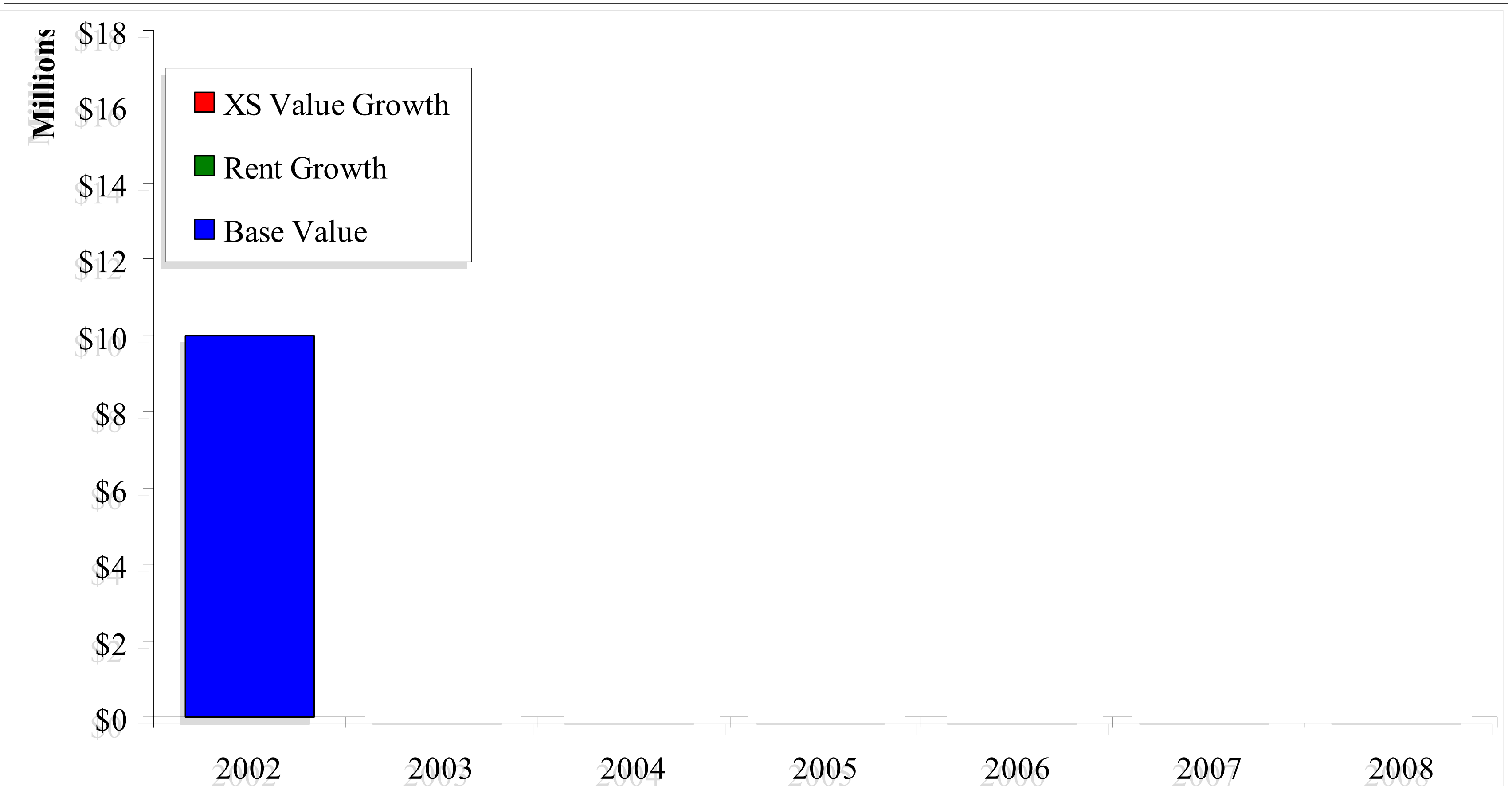
Sources: NREI, Property & Portfolio Research, Greer Consulting

Growth Example — Value vs. Income

Year	Rent	RentG	Ind Cap	Value
2002	750,000	3.30%	7.50%	$10,000,000

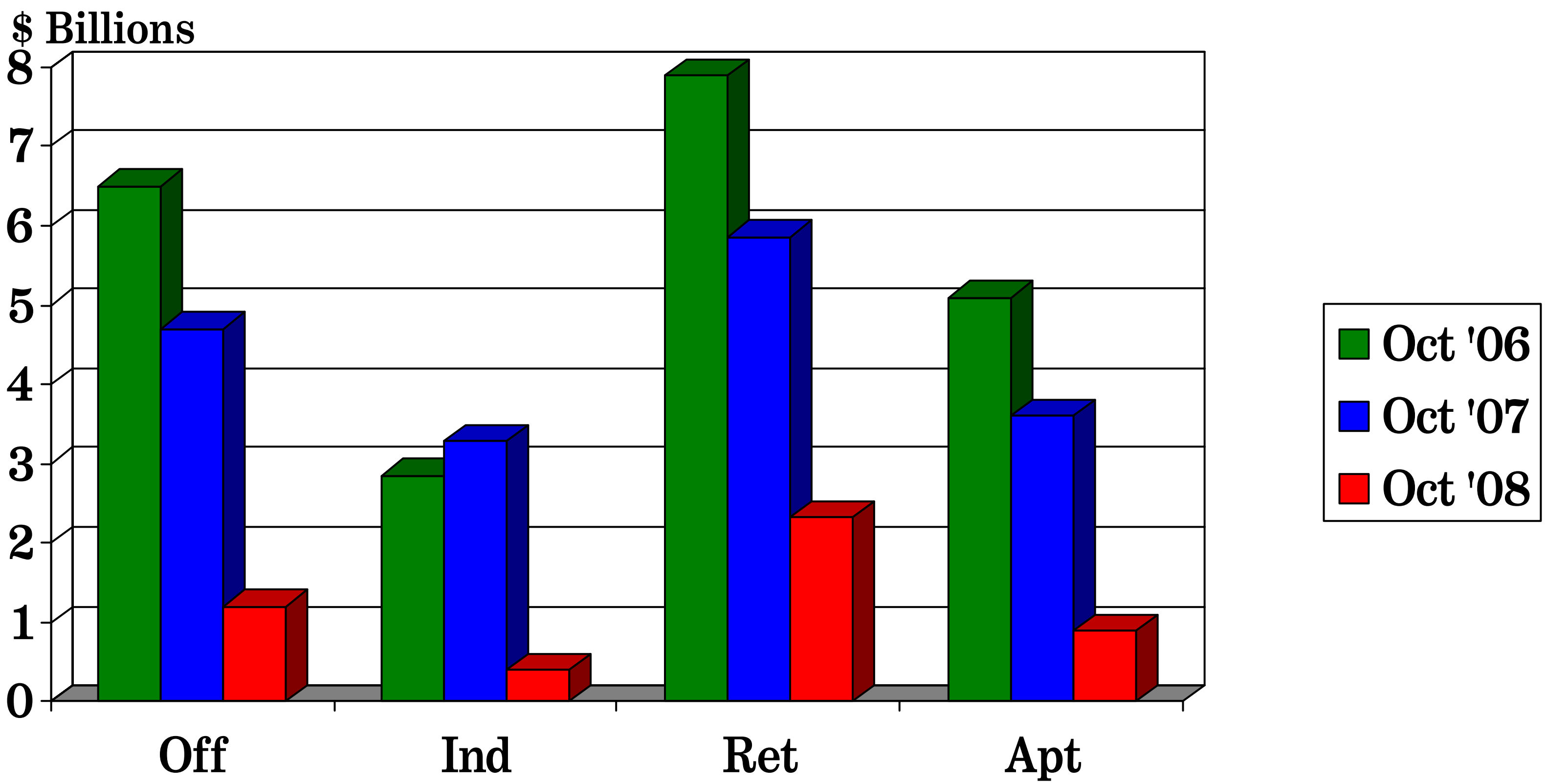
- Increase in value was only "interest rates" first 2 years.
  Momentum effect carried it further.
  What happens when it stops?

Rent versus Value Growth



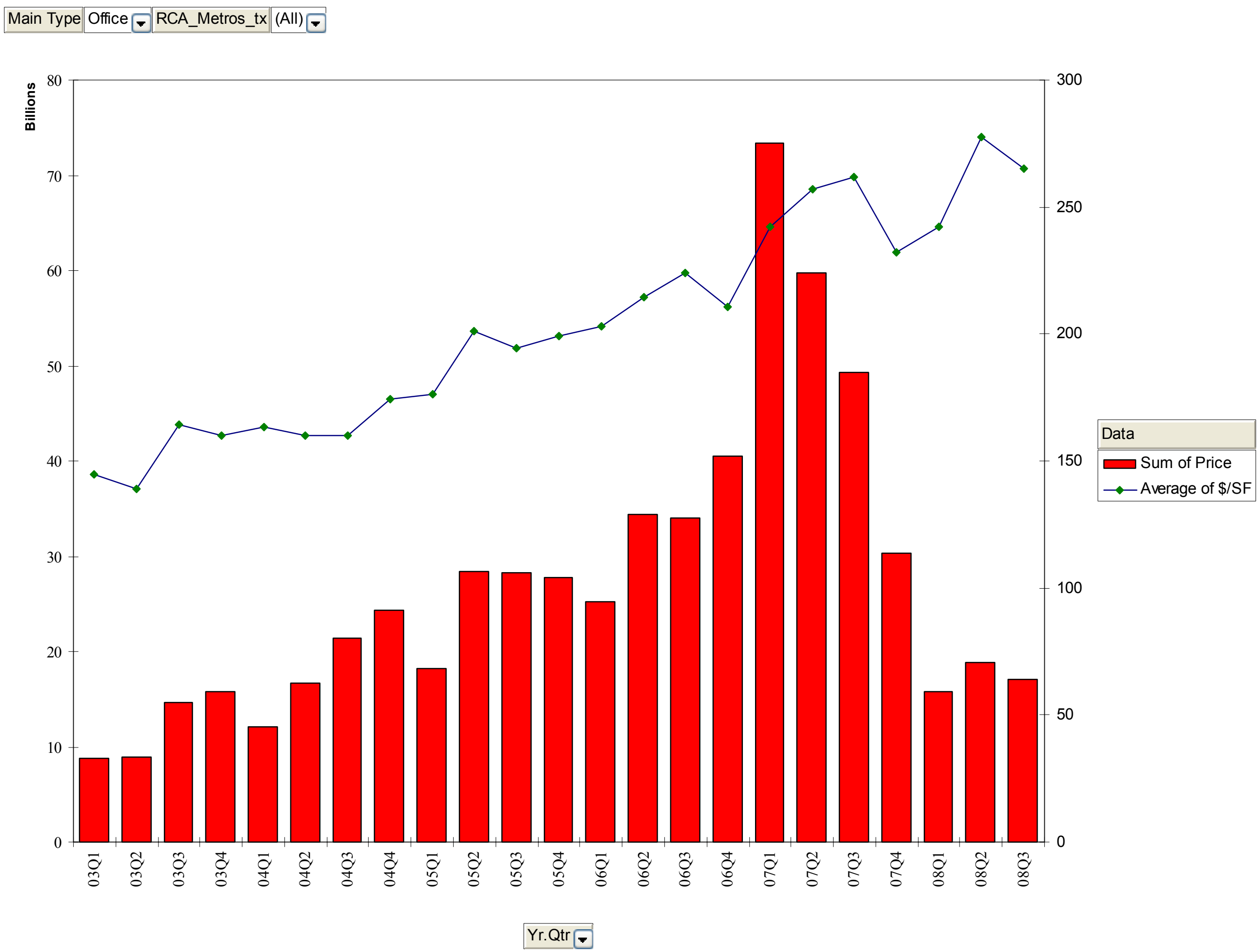
Source: Greer Consulting

Sales Volume Trends (National)



Source: Real Capital Analytics CTM 11/08, Greer Consulting

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



Source: Real Capital Analytics, Greer Consulting

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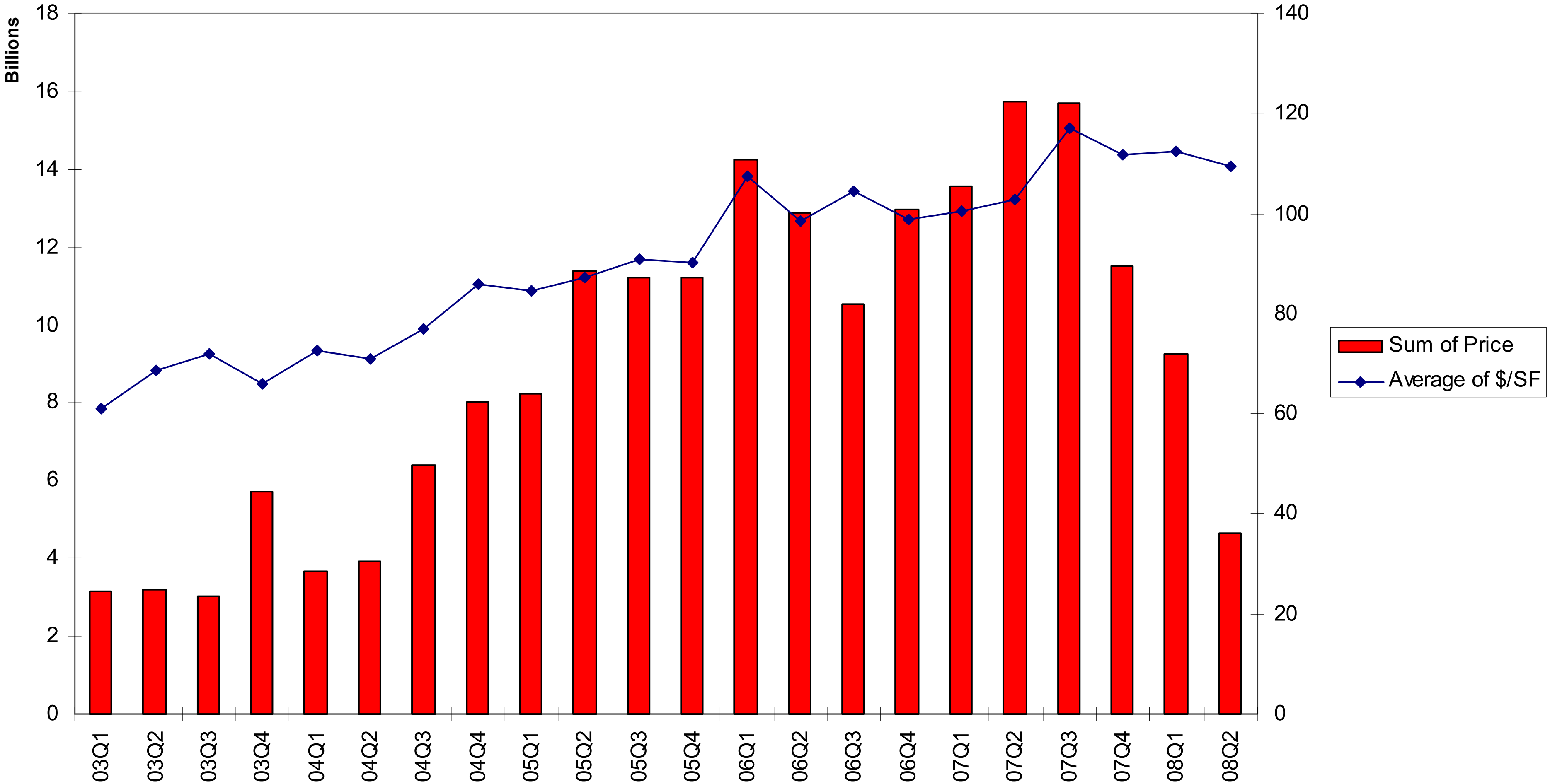
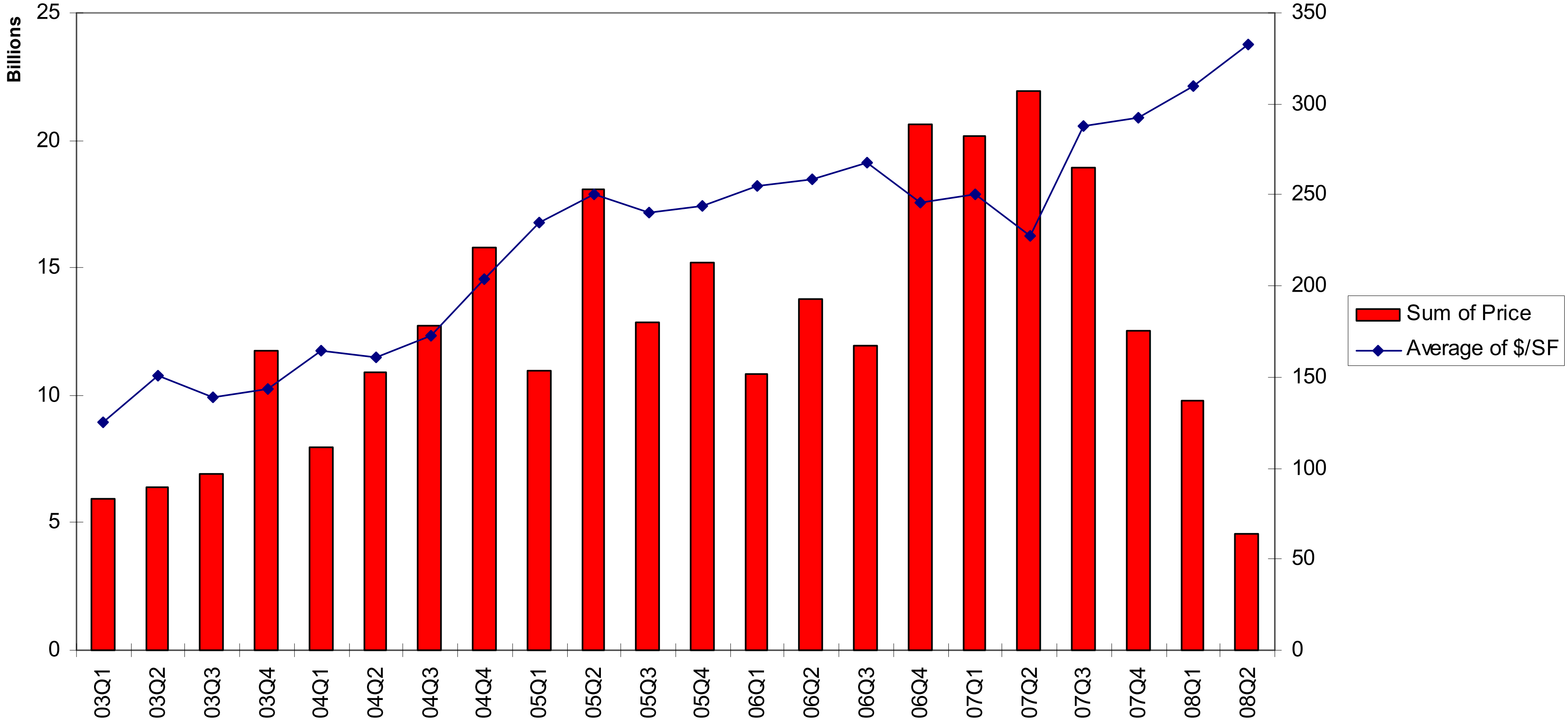
Sales Trends – Ind – 54% Q3 '08 vs. '07



Source: Real Capital Analytics, Greer Consulting

Sales Trends – Retail – 71% Q3 ‘08 vs. ‘07



Source: Real Capital Analytics, Greer Consulting

Vacancy Top / Bottom Markets – Q308

U.S.		Off -13.4%		Ind - 10.7%		Apt 5.8%		Ret – 8.4%		Hot* 68.2%	
Top	1	New York	6.2	Los Angel	5.4	Pittsburgh	2.7	Fairfield	3.6	San Fran	85.4
	2	Honolulu	9.2	Salt Lake	6.3	Newark	3.4	San Jose	3.8	New York	85.0
	3	San Fran	9.7	Tucson	6.4	San Diego	3.4	Los Angeles	3.9	Seattle	81.3
	4	Long Isla	9.9	Houston	7.0	Oakland	3.5	Orange Cou	3.9	Long Isla	79.7
	5	Seattle	9.9	San Franc	7.1	Edison	3.6	N New Jrs	4.0	Portland	77.9
Bottom	5	W Plm Bch	19.2	Stamford	15.9	Dayton	8.2	Cincinnatt	14.4	N Orleans	57.9
	4	Dallas	20.3	Detroit	17.5	Atlanta	8.5	Columbus	14.4	Tucson	55.1
	3	Phoenix	20.3	Memphis	18.5	Greensboro	8.6	Syracuse	14.8	W Plm Bch	52.3
	2	Edison	21.1	Trenton	19.0	Phoenix	9.8	Dayton	15.4	Phoenix	51.0
	1	Detroit	22.0	Ann Arbor	21.0	Jacksonvi	10.0	Birminghm	15.5	Tampa	50.1
Spread			15.8		15.6		7.3		11.9		35.3

Source: Torto-Wheaton Research (Off, Ind, Apt, Hot), REIS (Ret)
Greer Consulting * Hotel = Occupancy

Quote of the Day

"…prediction is very difficult, especially when it's about the future…"

~~NY Yankees #8, Yogi Bera~~

Niels Bohr

Nobel Laureate, 1922

Atomic Structure /

Quantum Mechanics

Conclusions

- 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 1/2009

- 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
- Rent Growth will Lag CPI growth by 0-5%
- Values will fall 5-15% from 2008-2011.Individual Market Performance will very 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

Questions / Answers

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