
Capital Markets and Commercial Real Estate

Everett (Allen) Greer
Greer Consulting

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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?

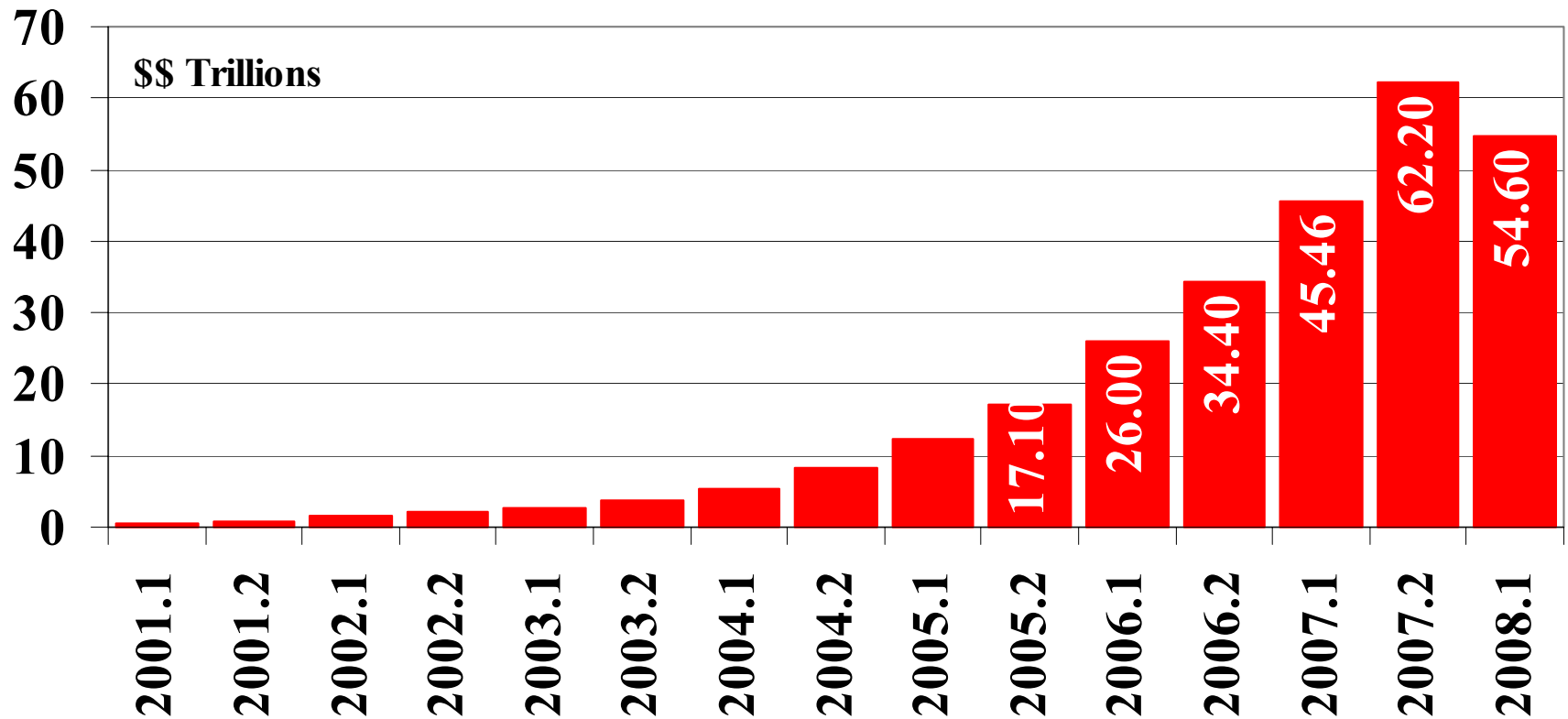
Credit Default Swap

- 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

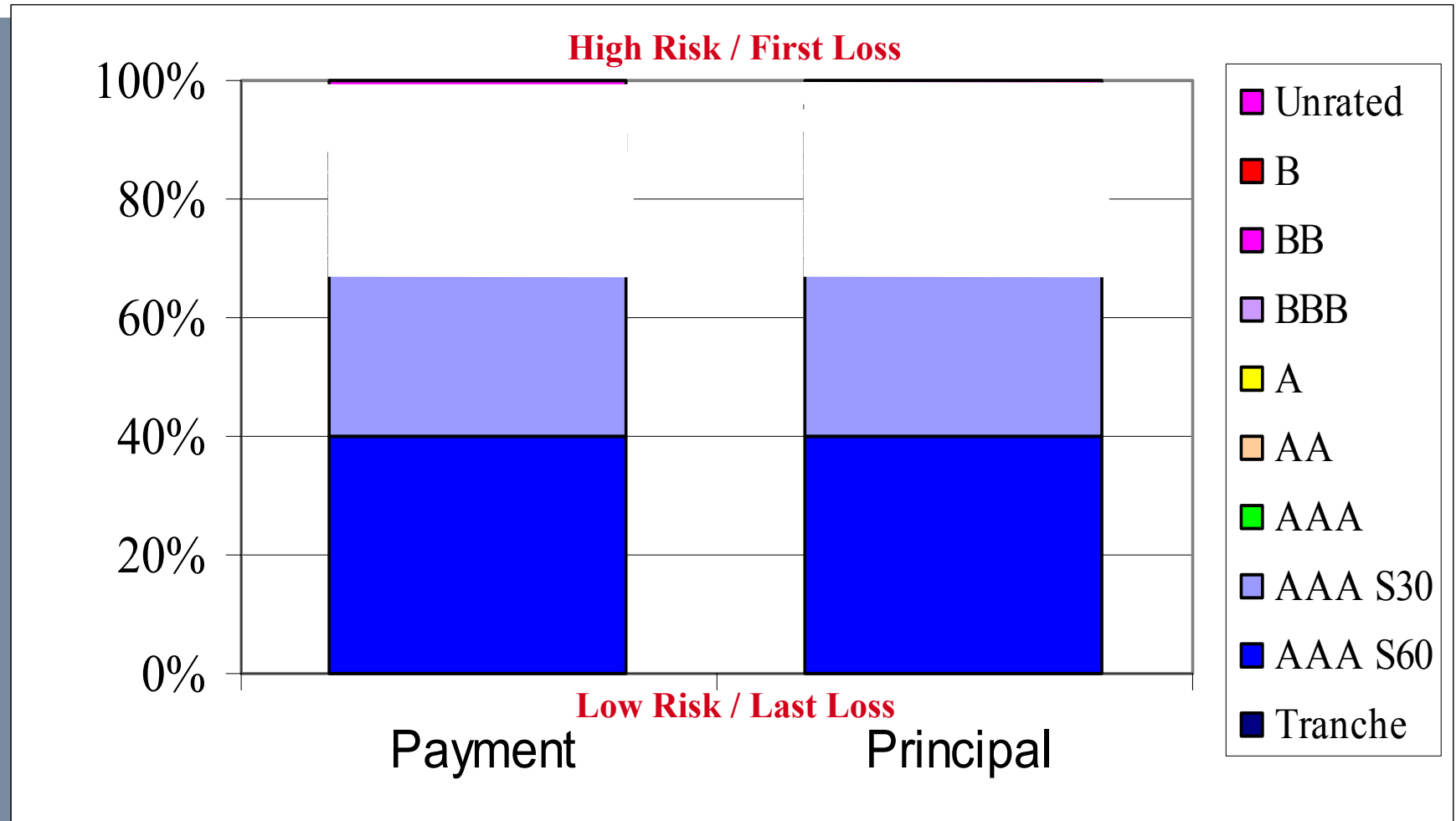


Source: ISDA Semi-Annual Voluntary Survey, Greer Consulting

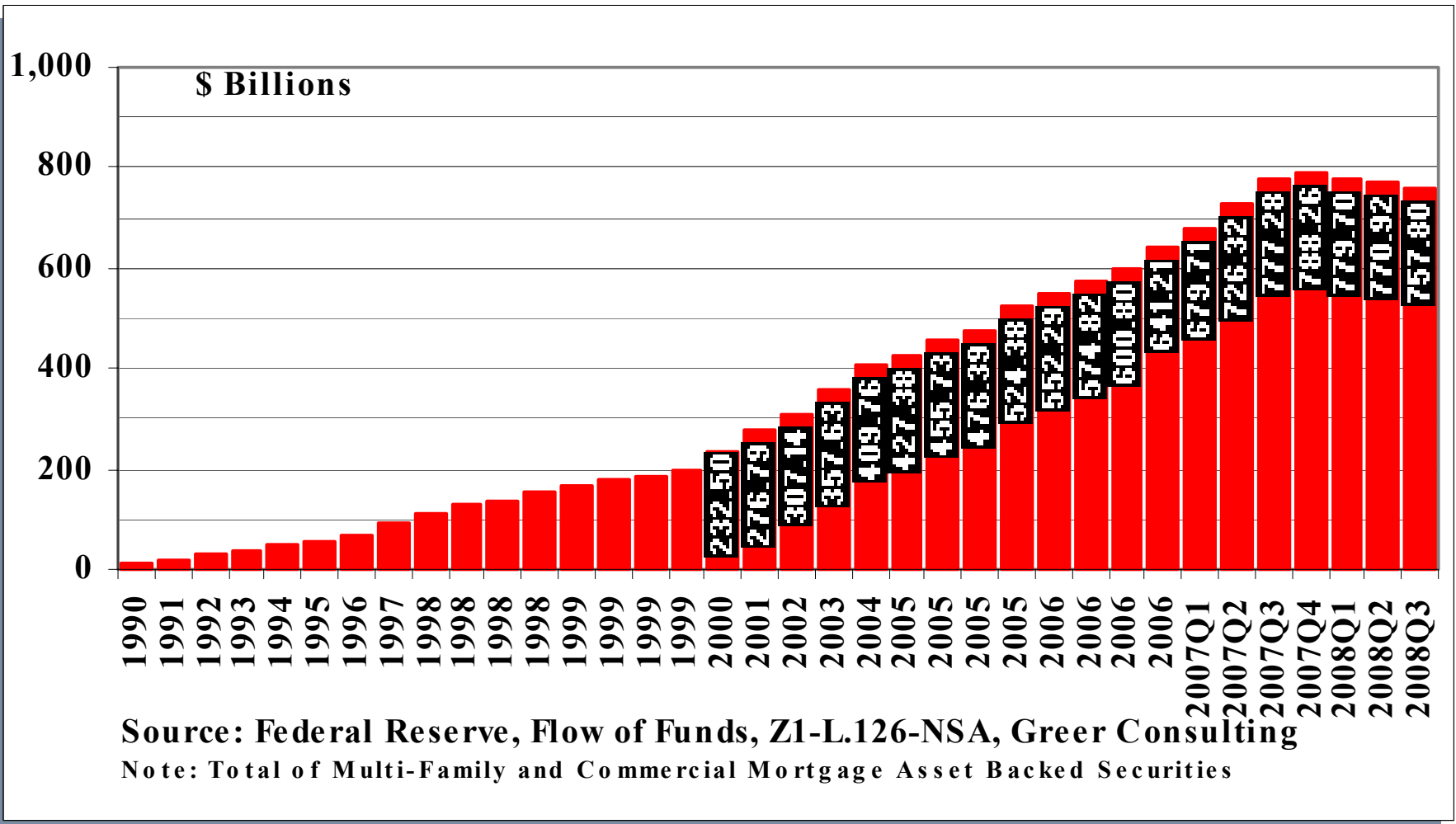
Example of a “Typical” CMBS

		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	2009.01.28	Tranche	Approximate	2007.01	2009.01.28
0.0020	0.0479	AAA S60	60.0%	4.200%	8.795%
0.0025	0.0599	AAA S30	30.0%	4.250%	9.993%
0.0030	0.1467	AAA	12.5%	4.300%	18.673%
0.0040	0.2013	AA	9.0%	4.400%	24.128%
0.0100	0.2544	A	8.0%	5.000%	29.435%
0.0175	0.3452	BBB	5.0%	5.750%	38.520%
0.0250	0.3656	BB	4.0%	6.500%	40.563%
0.0400	0.7000	B	2.5%	8.000%	74.000%
0.0500	1.0500	Unrated	0 to <2.5%	9.000%	109.000%
			Weighted Average	4.494%	16.319%
		Implied Annual Excess Return		0.256%	-11.569%
Note: Assumes 1% swap, agency, trust, servicer and other fees.				\$6,400,000	-\$289,217,775

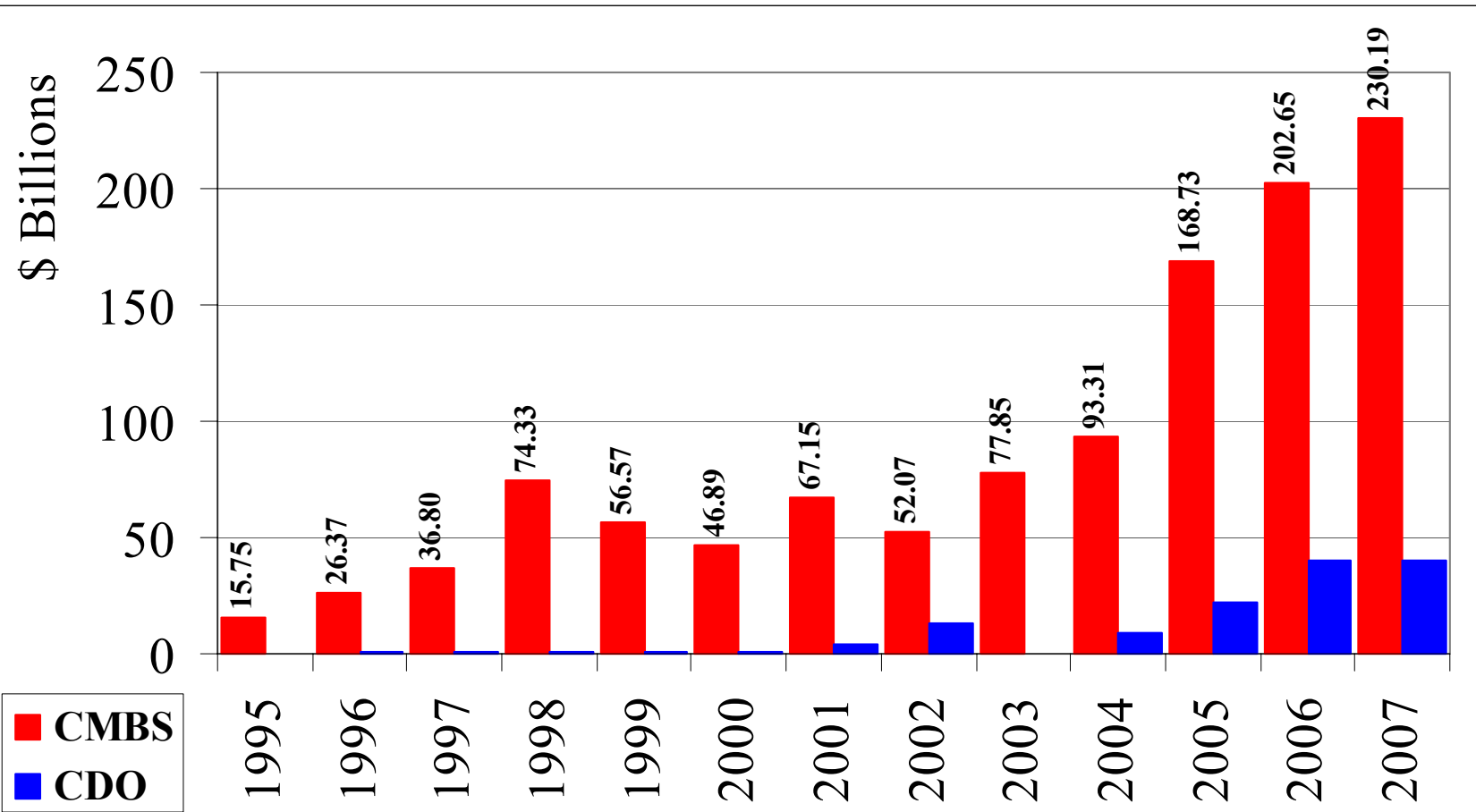
Subordination Graph



CMBS Outstandings in U.S. - Grows

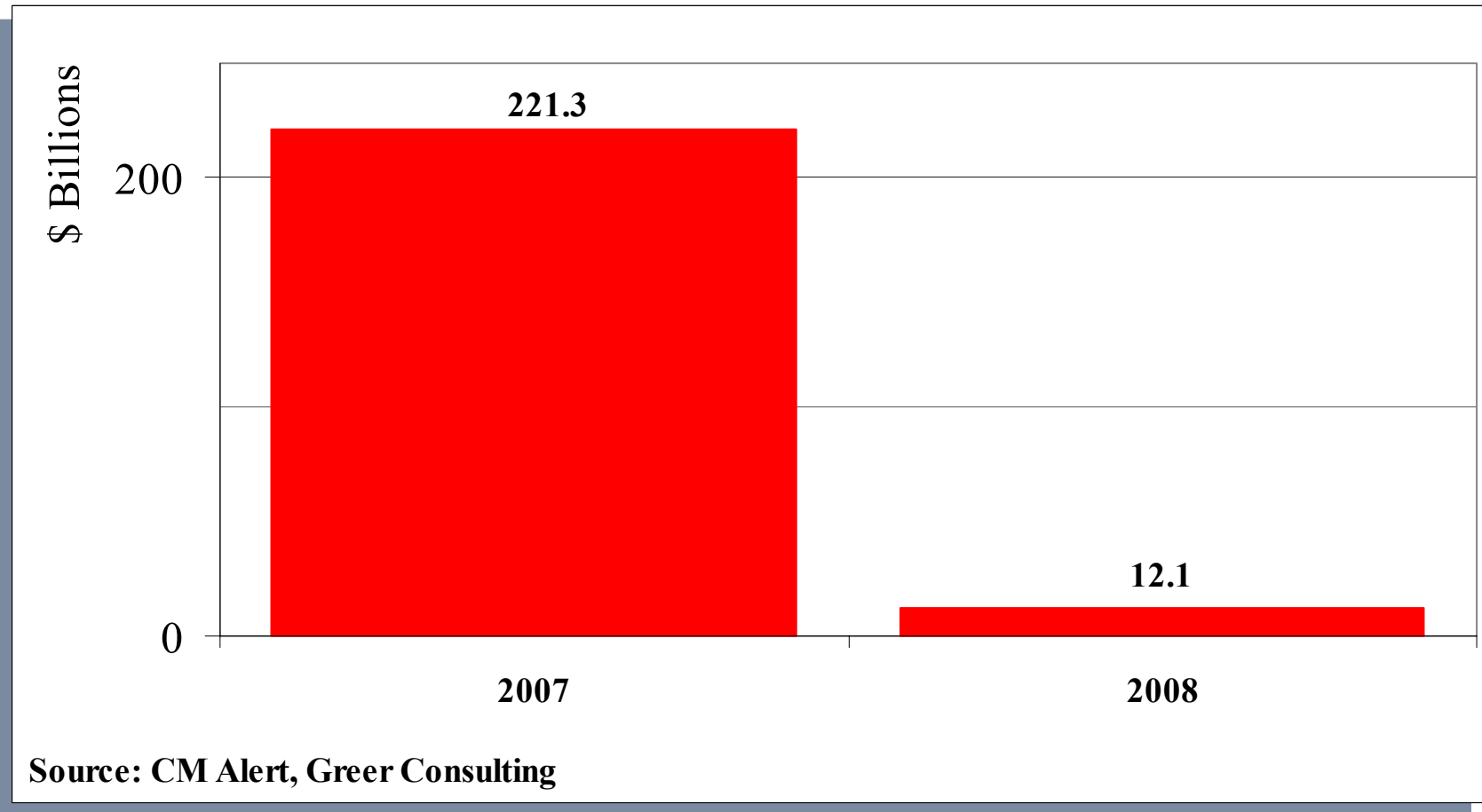


CMBS Issuance in U.S. - Skyrockets

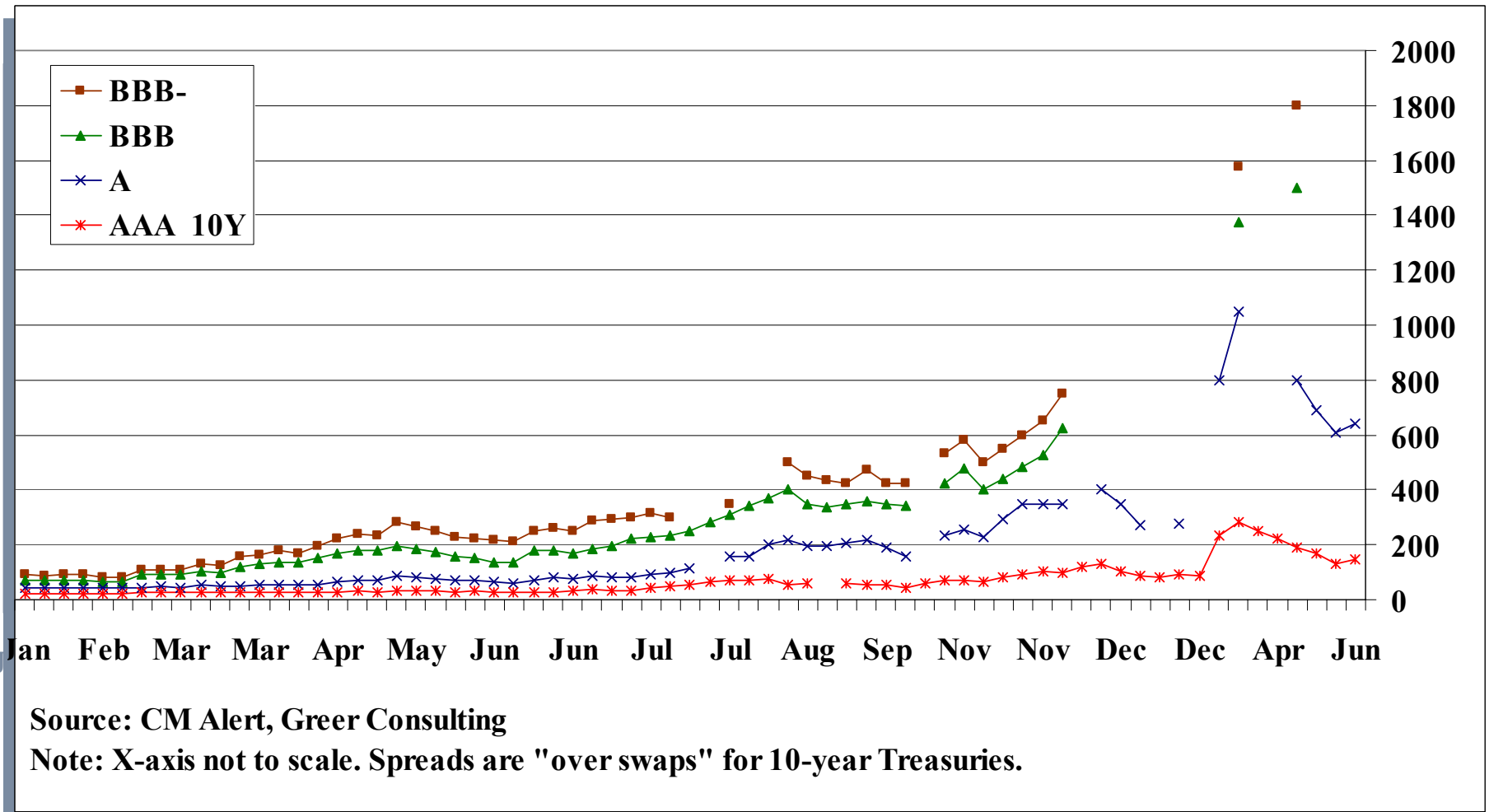


Source: CM Alert, Greer Consulting

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

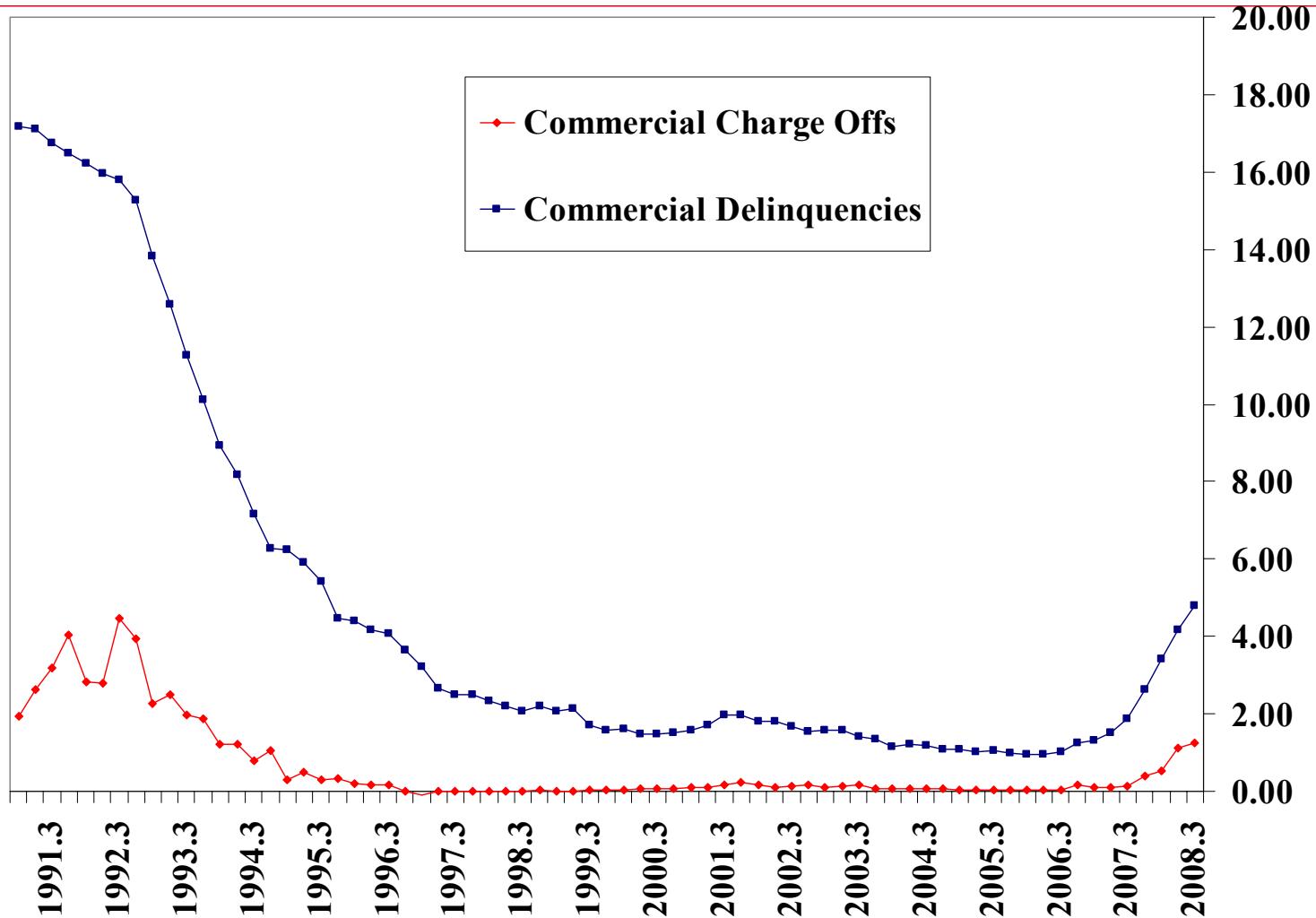


CMBS Yield Spreads (Spread to Swap)



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* 1/28/09	Approx CMBS 1/2007 **	Rise in Yields**
CMBX.5 AAA	530.83	20.0	510.83
CMBX.5 AAA AJ	1,467.33	30.0	1,437.33
CMBX.5 AA	2,012.83	40.0	1,972.83
CMBX.5 A	2,543.50	55.0	2,488.50
CMBX.5 BBB	3,452.00	70.0	3,382.00
CMBX.5 BBB-	3,656.33	85.0	3,571.33
CMBX.5 BB	4,590.33	105.0	4,485.33

Source: *Markit, **Greer Consulting

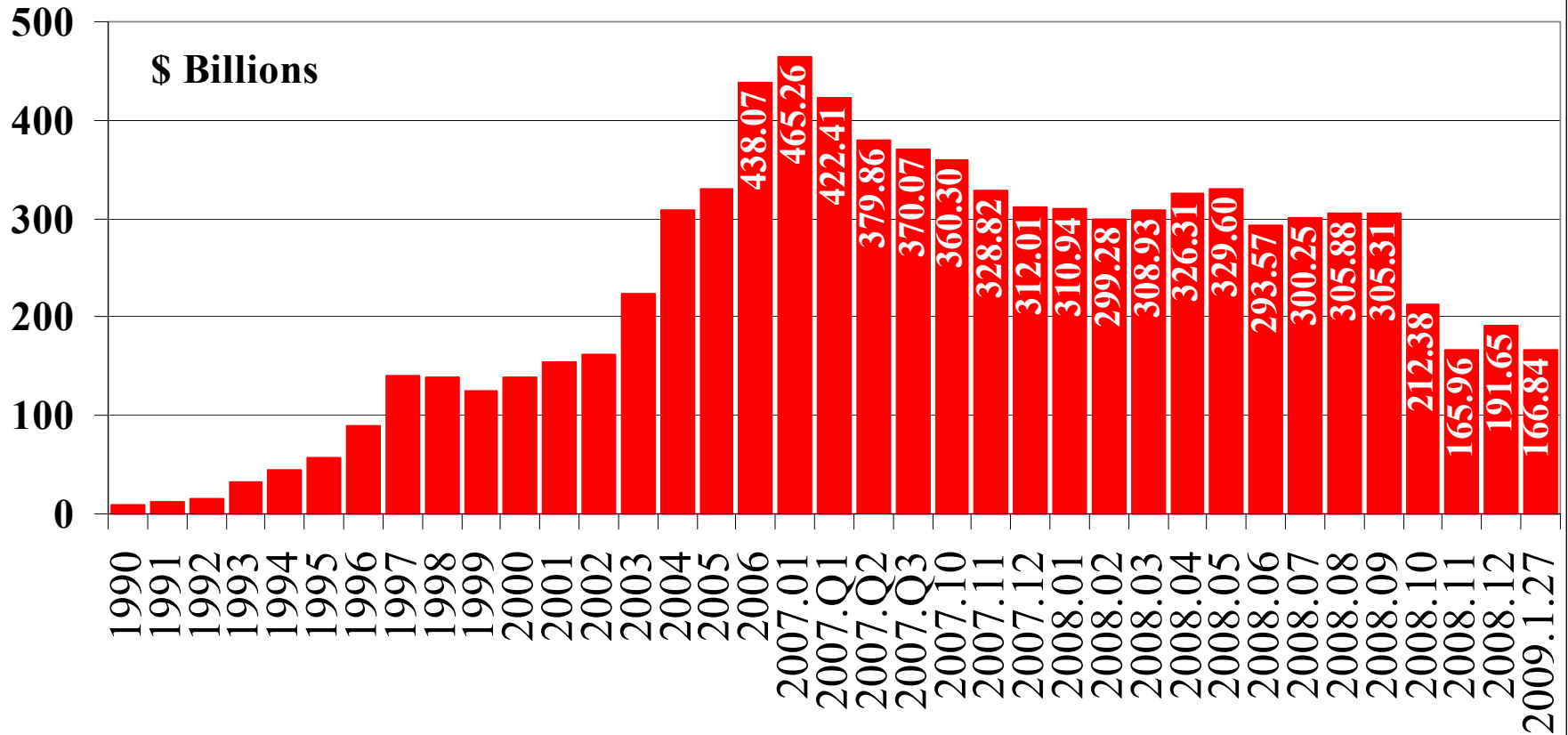
CMBS/X – Implied R.E. Yields

Tranche	Yield Spd	Suboord	Weight D	Debt	Wght T	Total
AAA Sr*	530.83	29.76%	70.24%	75%	52.68%	4.64%
AAA Jr*	1467.33	12.70%	17.06%	75%	12.80%	2.33%
AA*	2012.83	10.63%	2.07%	75%	1.55%	0.37%
A*	2543.50	8.00%	2.63%	75%	1.97%	0.57%
BBB*	3452.00	4.72%	3.28%	75%	2.46%	0.94%
BBB-*	3656.33	3.68%	1.04%	75%	0.78%	0.31%
BB*	4590.33	2.69%	0.99%	75%	0.74%	0.37%
Unrated	5500.00	0.00%	2.69%	75%	2.02%	1.18%
			100.00%			
Class A Prop.	3700.00	100%		25%	25.00%	10.13%
Swap Rate	350.00				Total	19.59%
Class B Prop.	5500.00	100%		25%	25.00%	14.63%
Note: Class A yield assumed ≈ BBB-, Class B assumed 1000 bps higher					Total	25.32%

Source: *Markit, Greer Consulting

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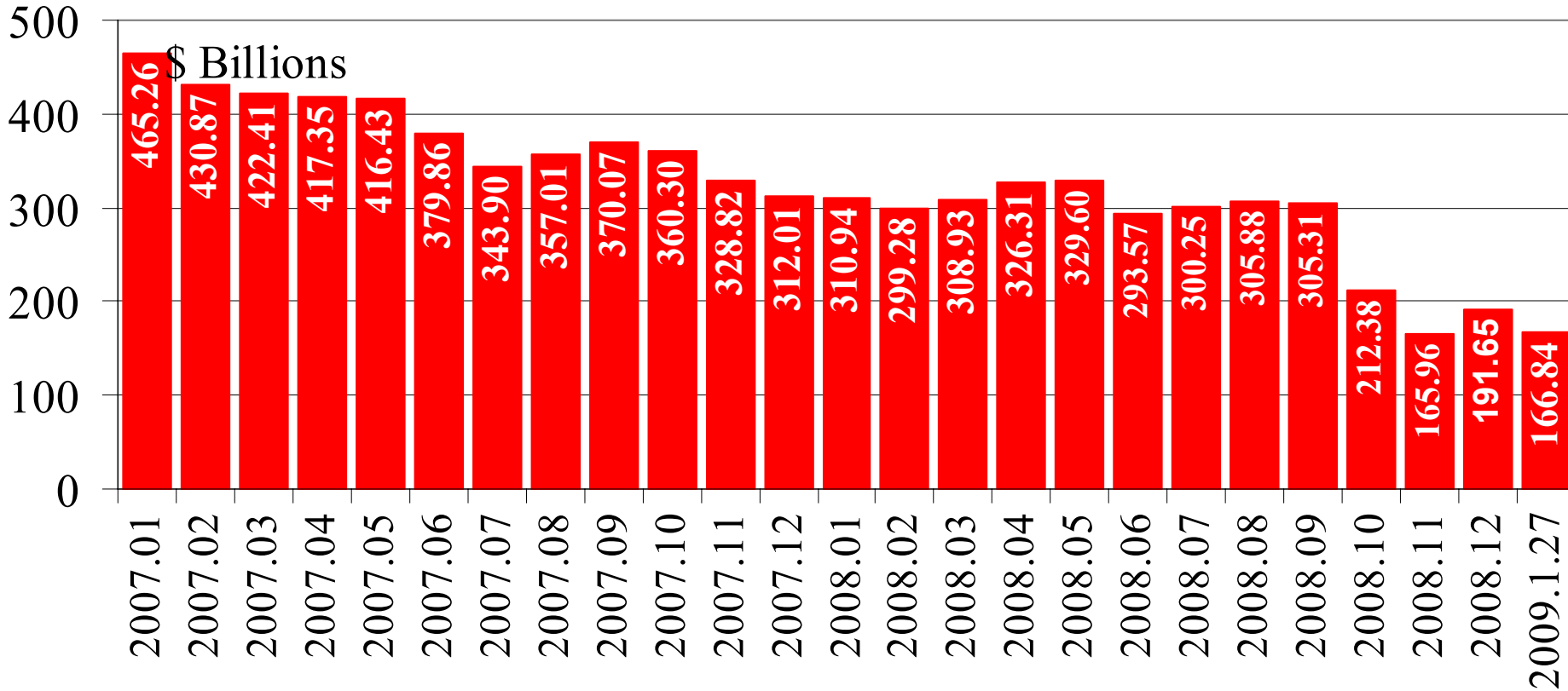
REIT Market Capitalization



Source: NAREIT, Greer Consulting

Note: Includes Equity, Debt and Hybrid REITS

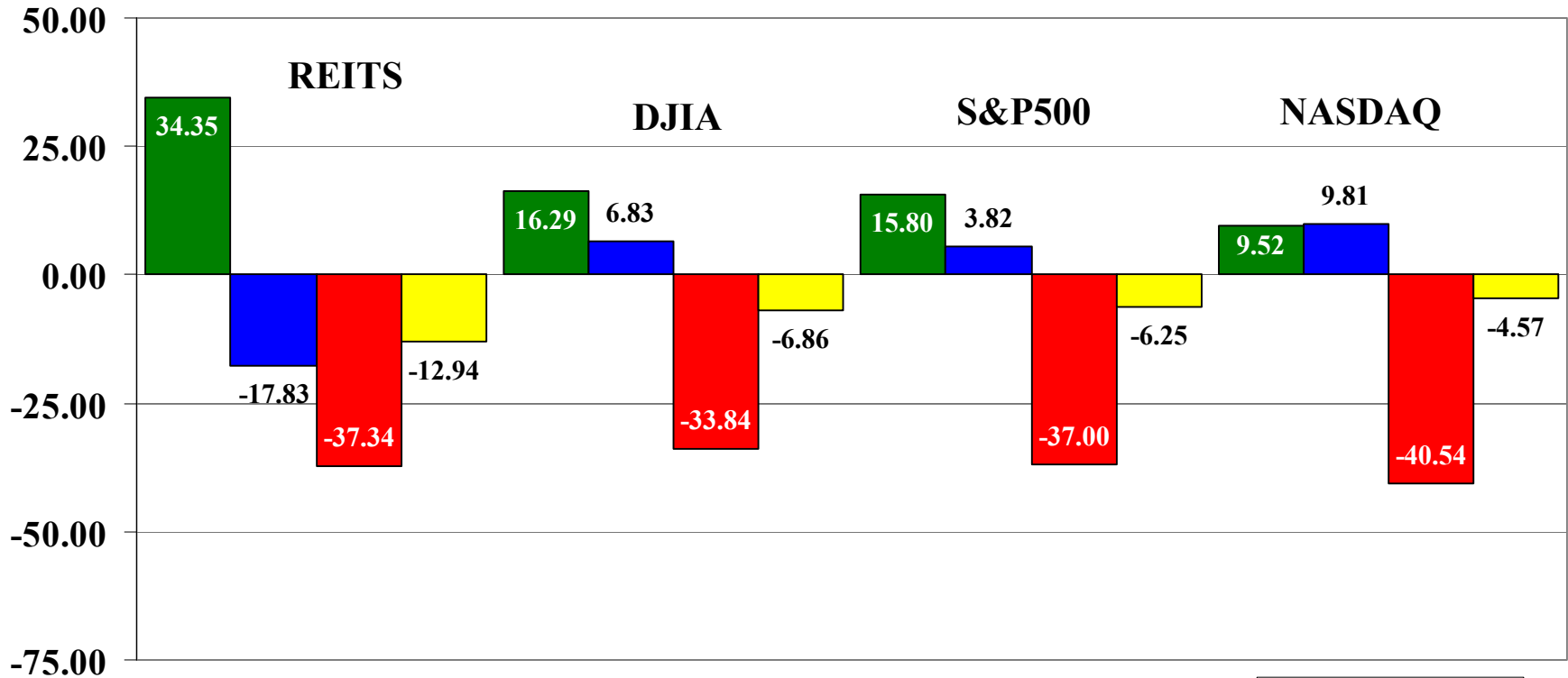
REITs Lose \$298 Billion or 65% of value



Source: NAREIT, Greer Consulting

Note: Includes Equity, Debt and Hybrid REITS

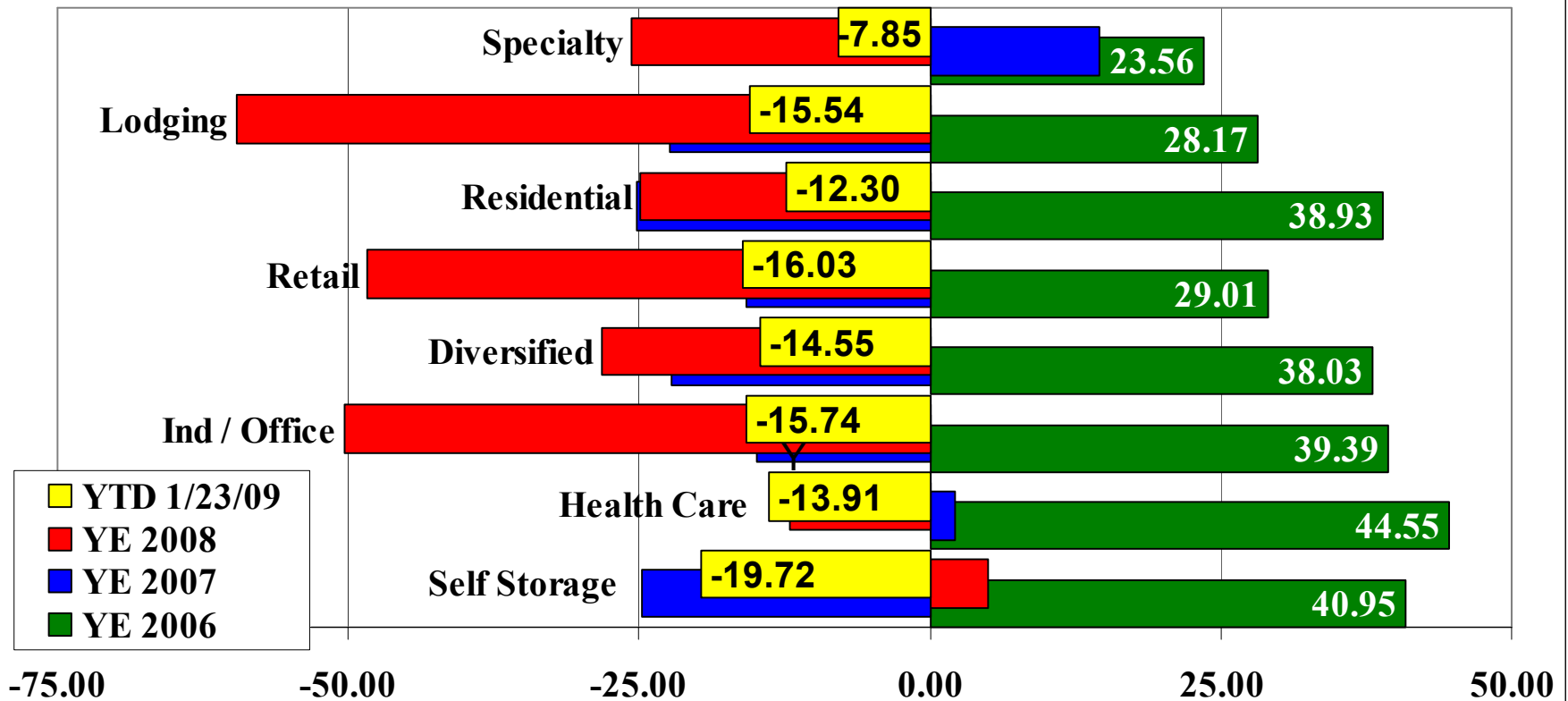
Benchmark Returns — Changes so Fast!



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

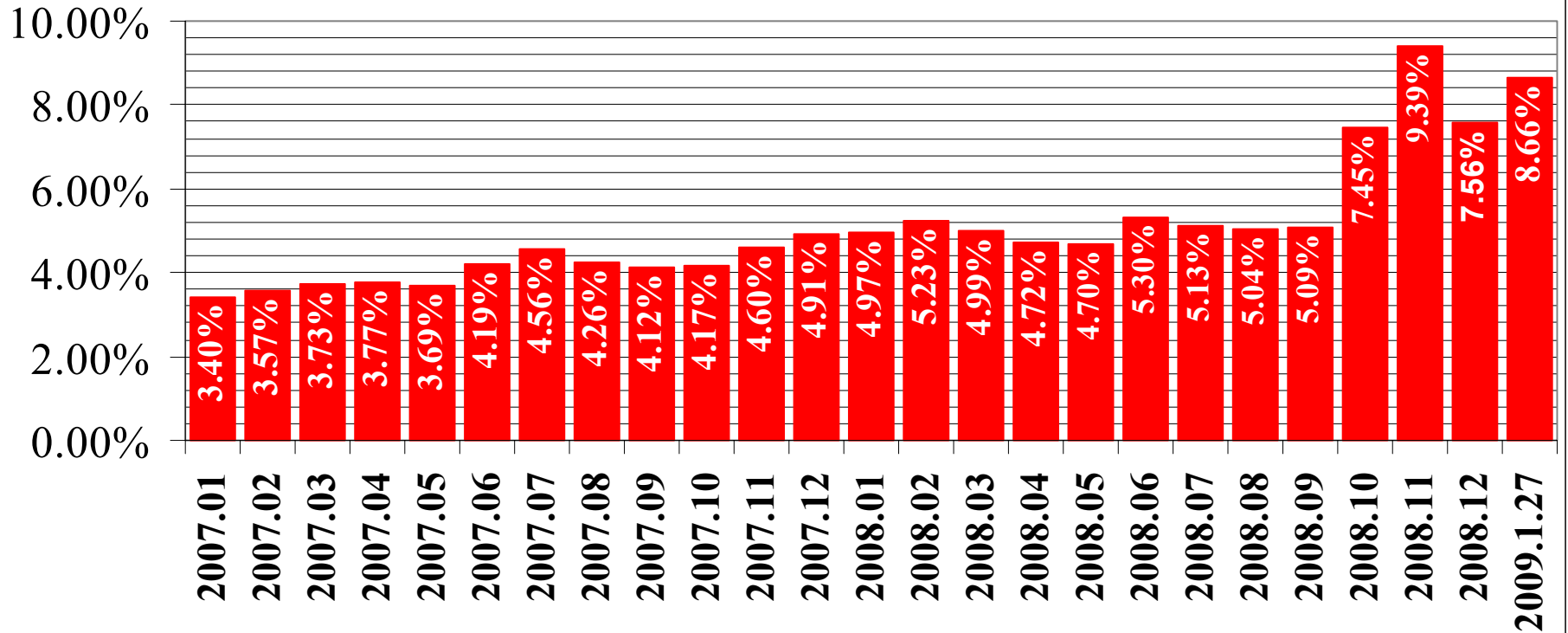
■ YE 12/31/06
 ■ YE 12/31/07
 ■ YE 12/31/08
 ■ YTD 1/27/09

REIT Property Type Returns — Old vs. New



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

REIT Capitalization Rate Trends

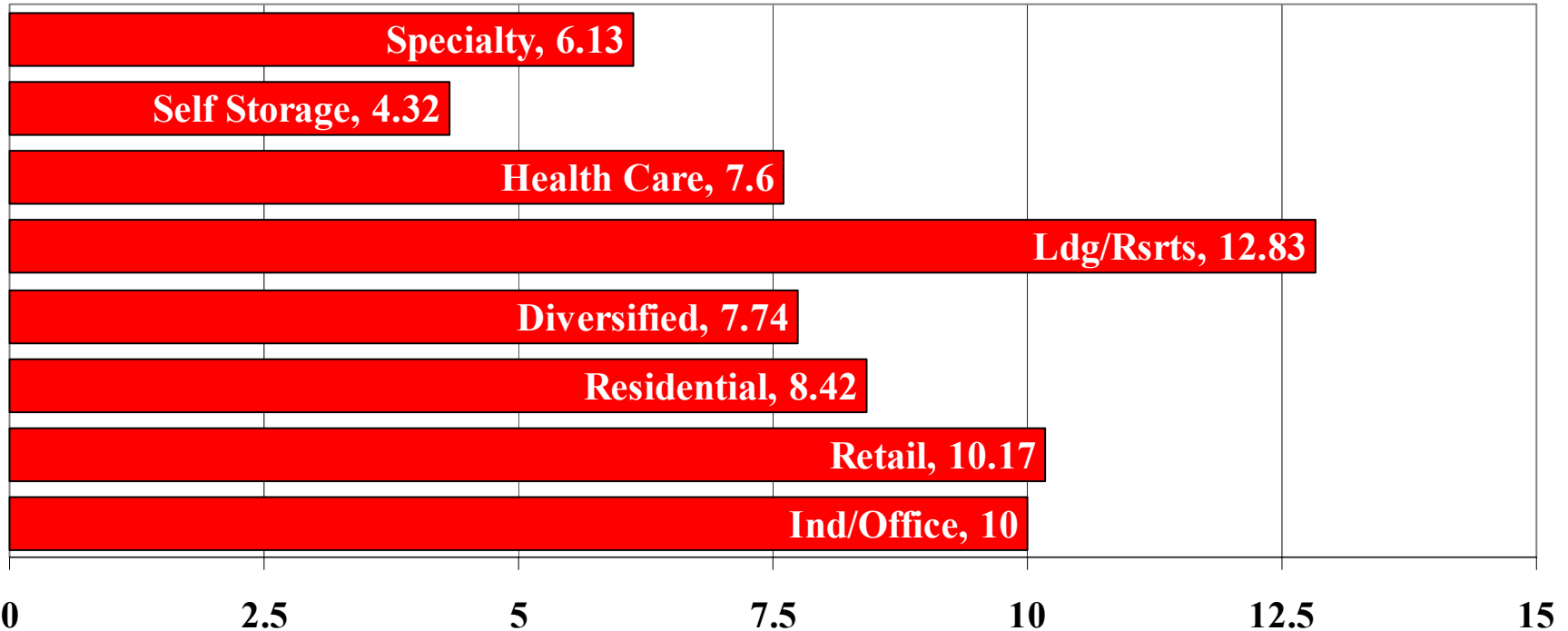


Source: NAREIT, Greer Consulting

Note: Dividend Yield from NAREIT Equity REIT Index

REIT Cap Rates by Property Type

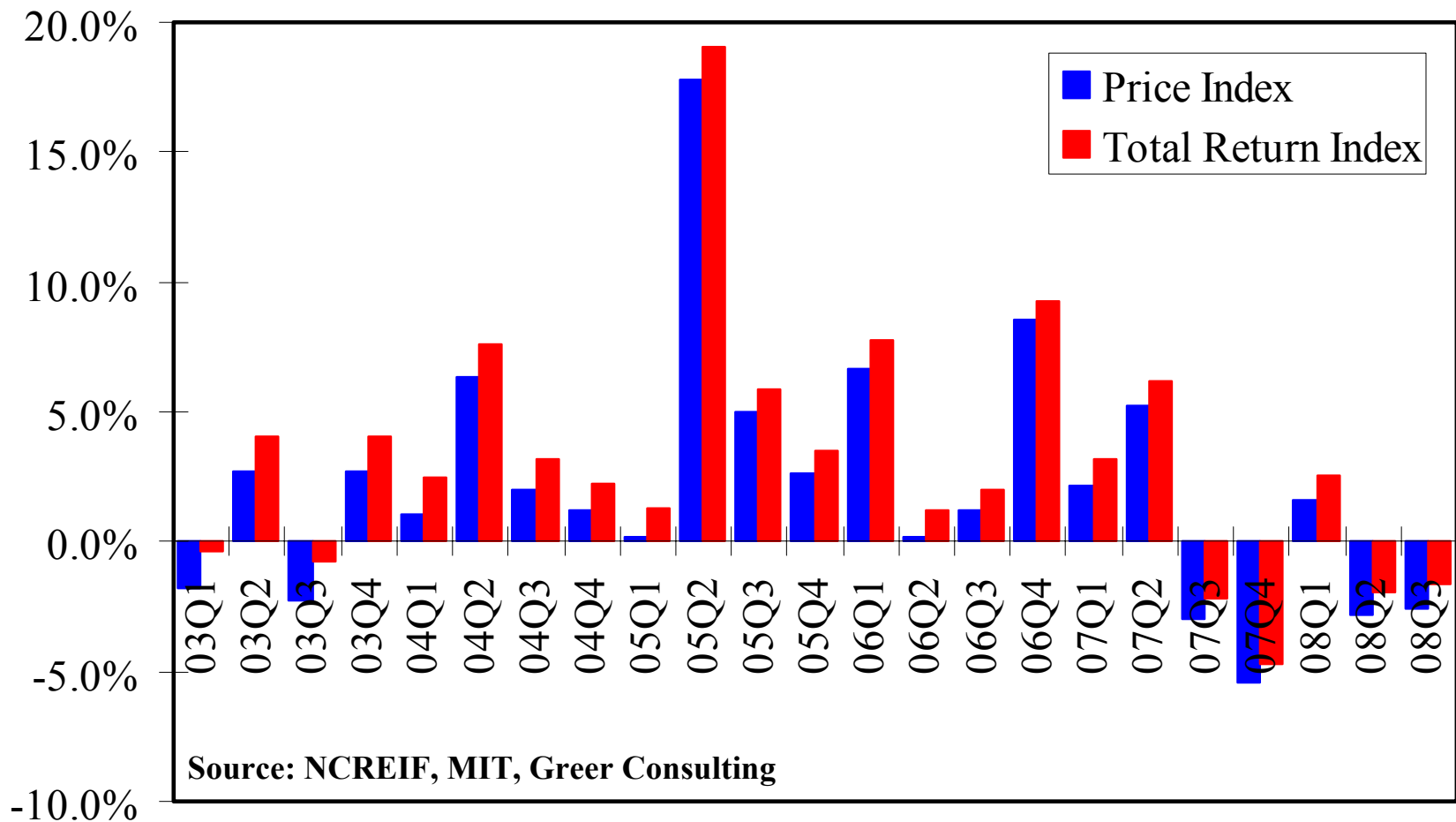
Dividend Yields per NAREIT Equity REIT Index



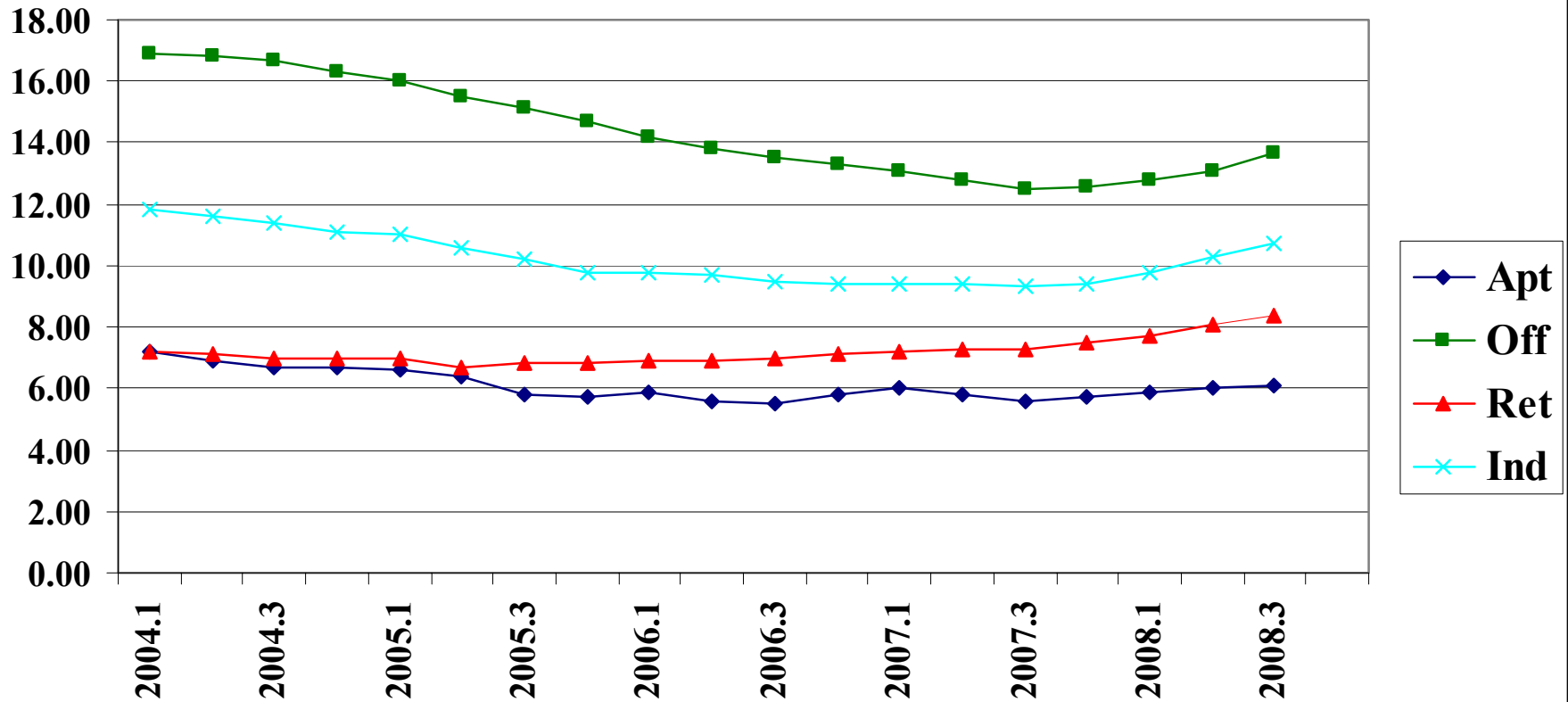
Source: NAREIT, Greer Consulting

Note: Dividend Yields as of EOD 1/27/09

NCREIF 08.Q3 Price Down/ Total Down

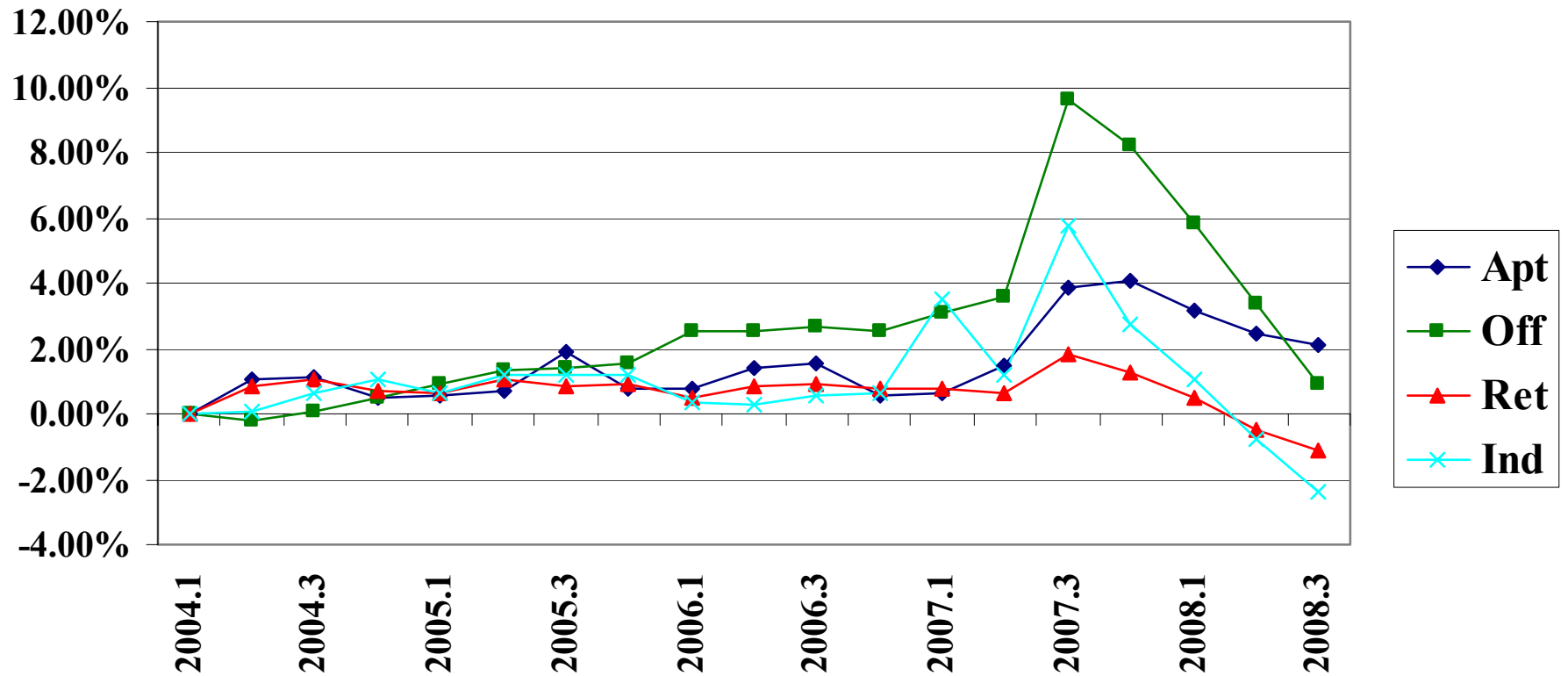


National Trend — Vacancy



Source: Torto-Wheaton Research, REIS, Greer Consulting

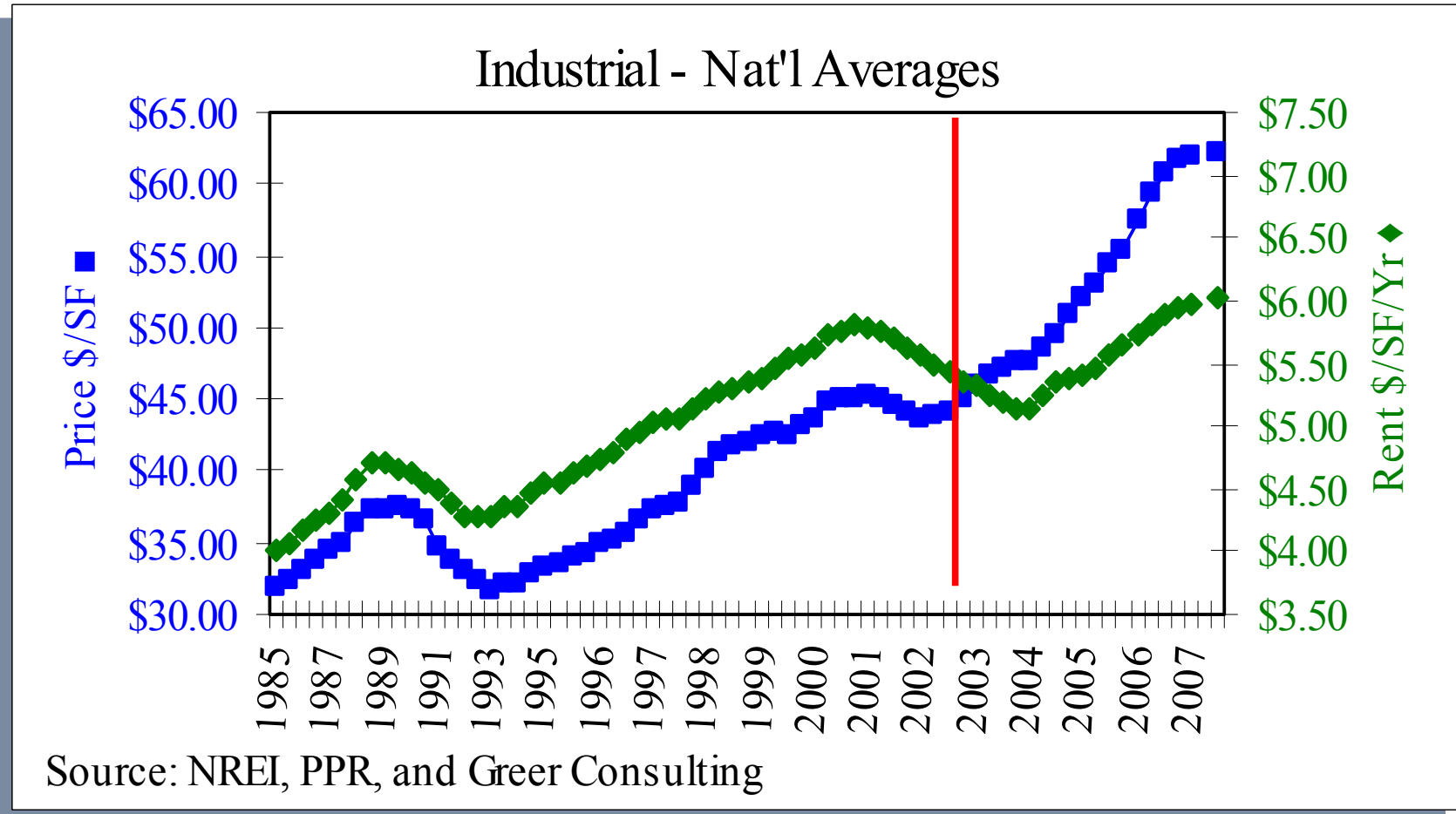
Realized Rents



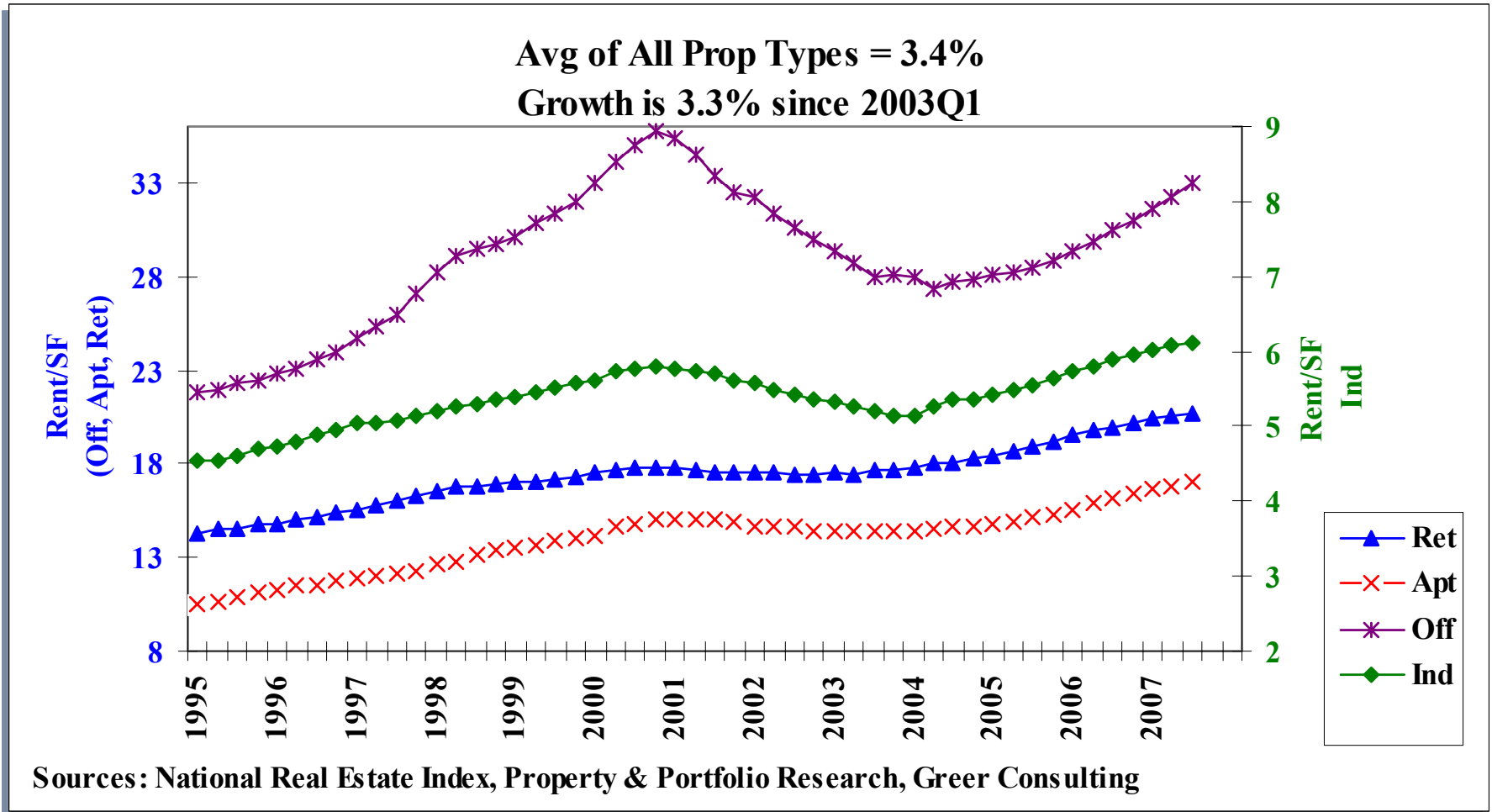
Source: Torto-Wheaton Research, REIS, Greer Consulting

*Realized rent is area occupancy times area rent.

The Relationship Breaks in 2003

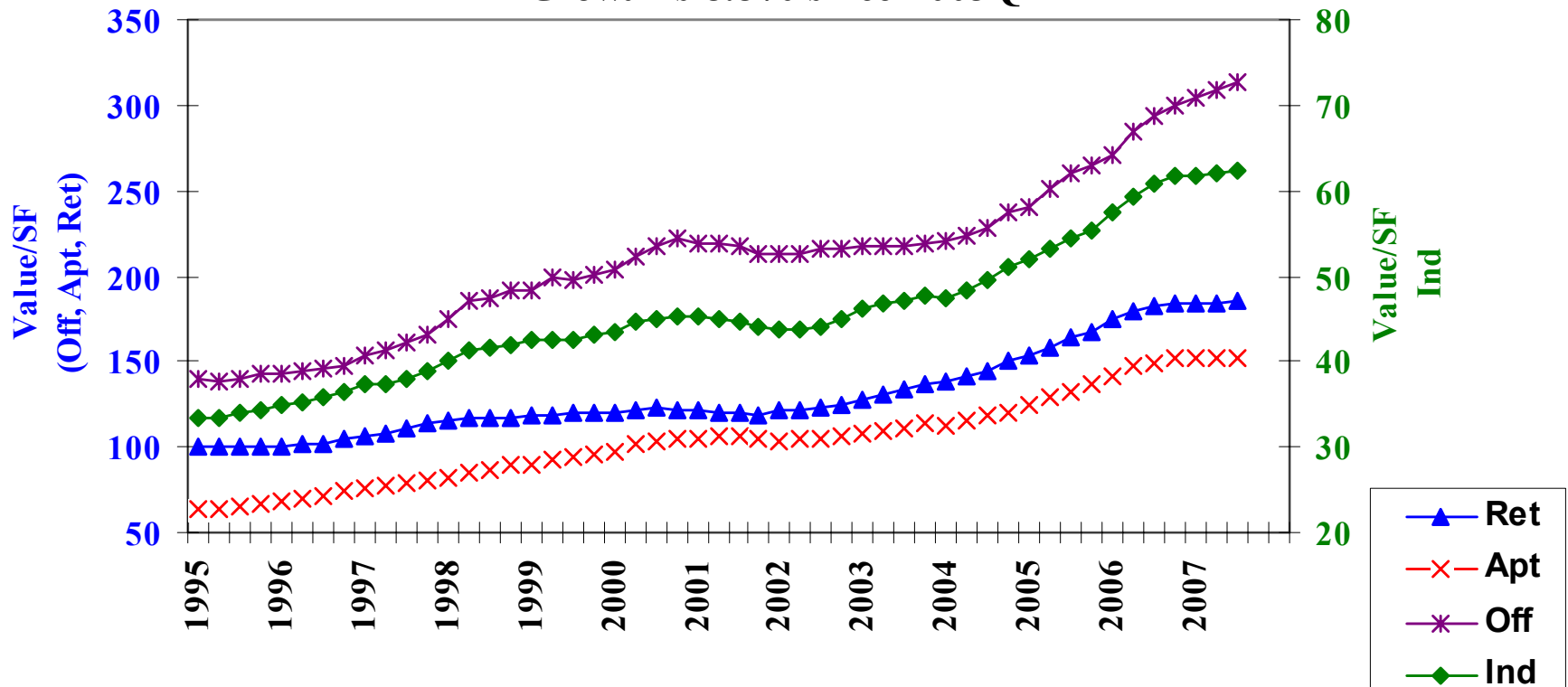


Market Trends — National Rents



Market Trends — National Values

Avg of All Prop Types = 8.6%
Growth is 8.8% since 2003Q1



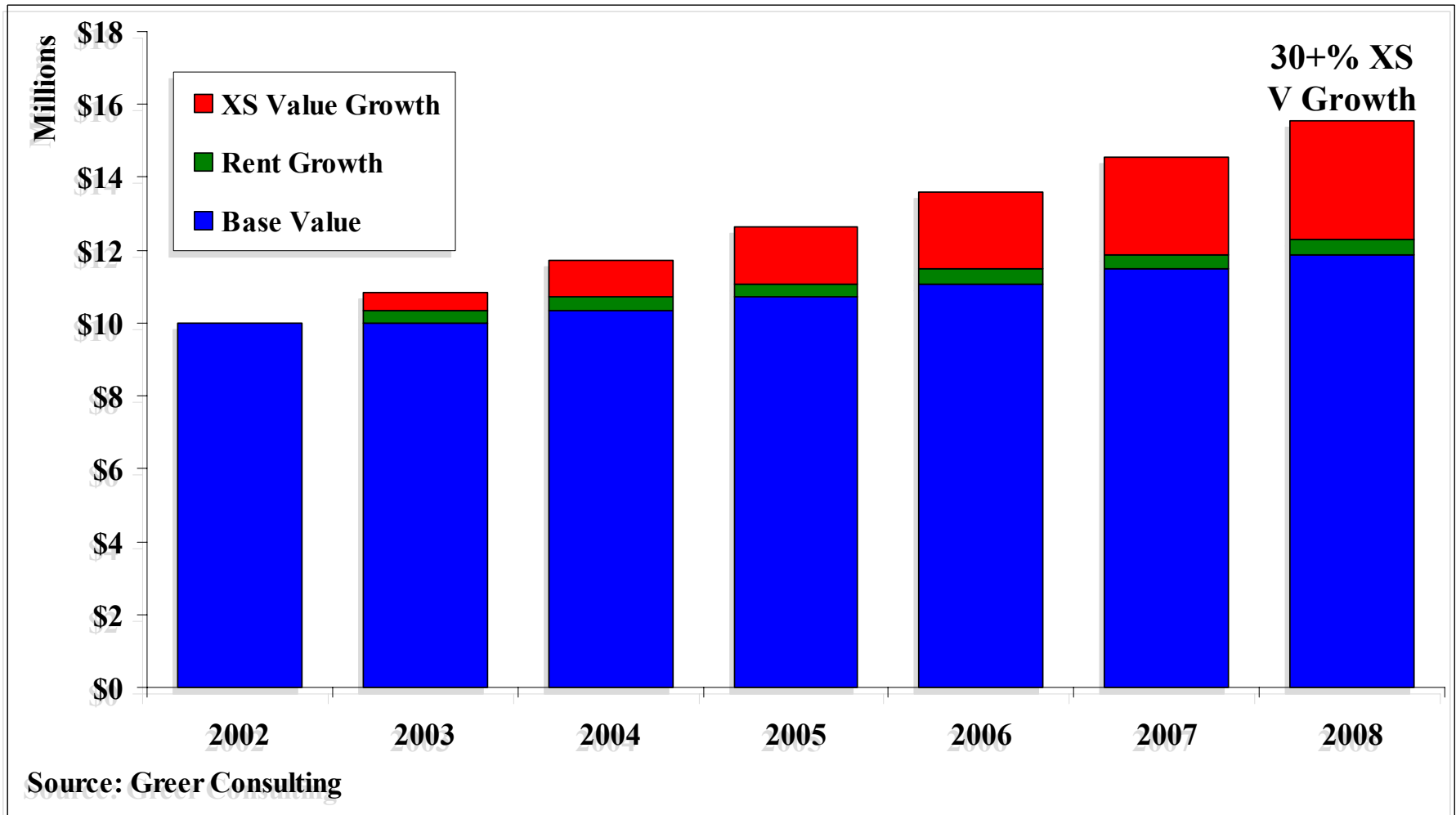
Sources: NREI, Property & Portfolio Research, Greer Consulting

Growth Example — Value vs. Income

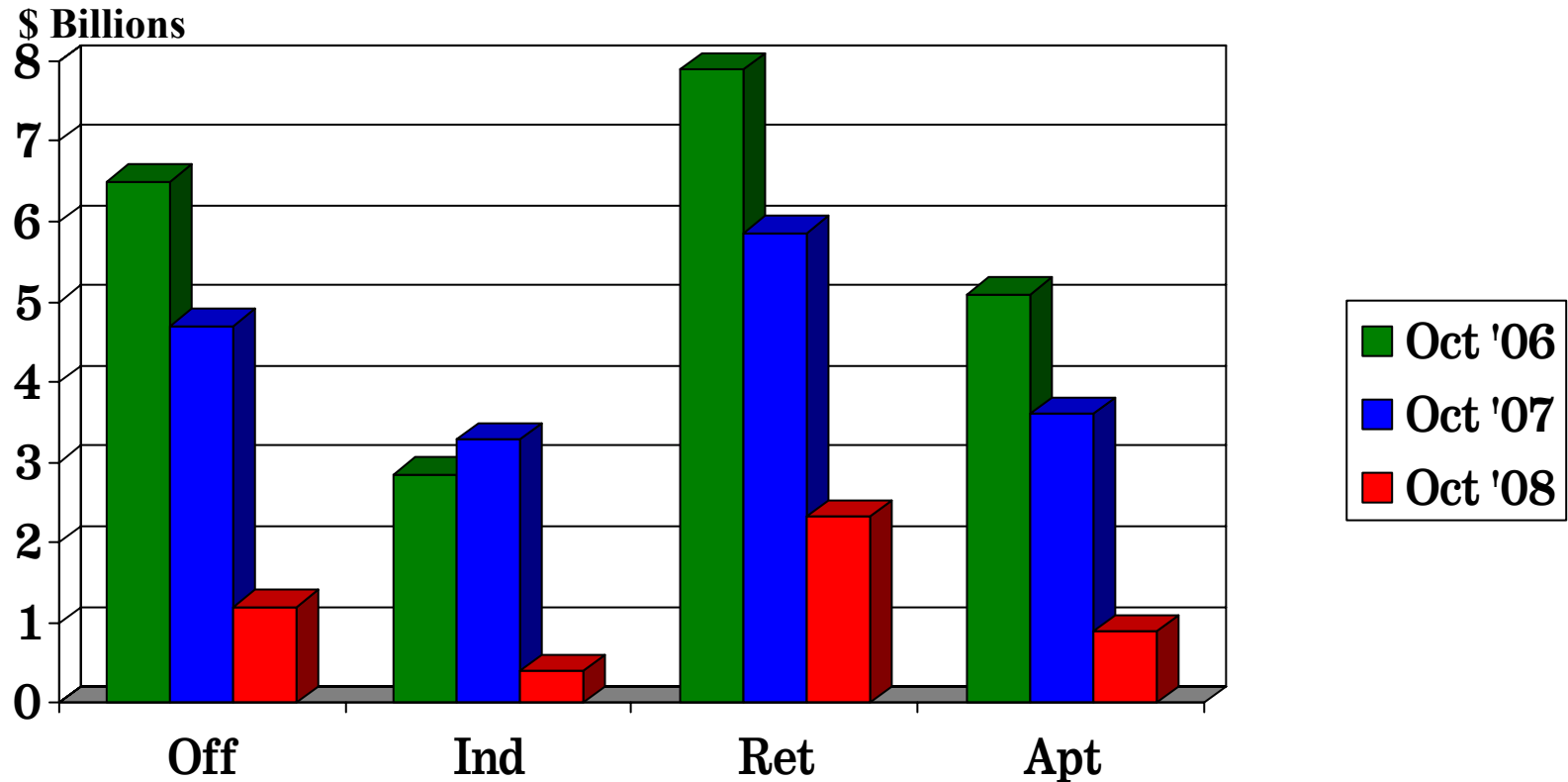
Year	Rent	RentG	Ind Cap	Value
2002	750,000	3.30%	7.50%	\$10,000,000
2003	774,750	3.30%	7.12%	\$10,880,000
2004	800,317	3.30%	6.76%	\$11,837,440
2005	826,727	3.30%	6.42%	\$12,879,135
2006	854,009	3.30%	6.09%	\$14,012,499
2007	882,192	3.30%	5.79%	\$15,245,598
2008	911,304	3.30%	5.49%	\$16,587,211
	average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

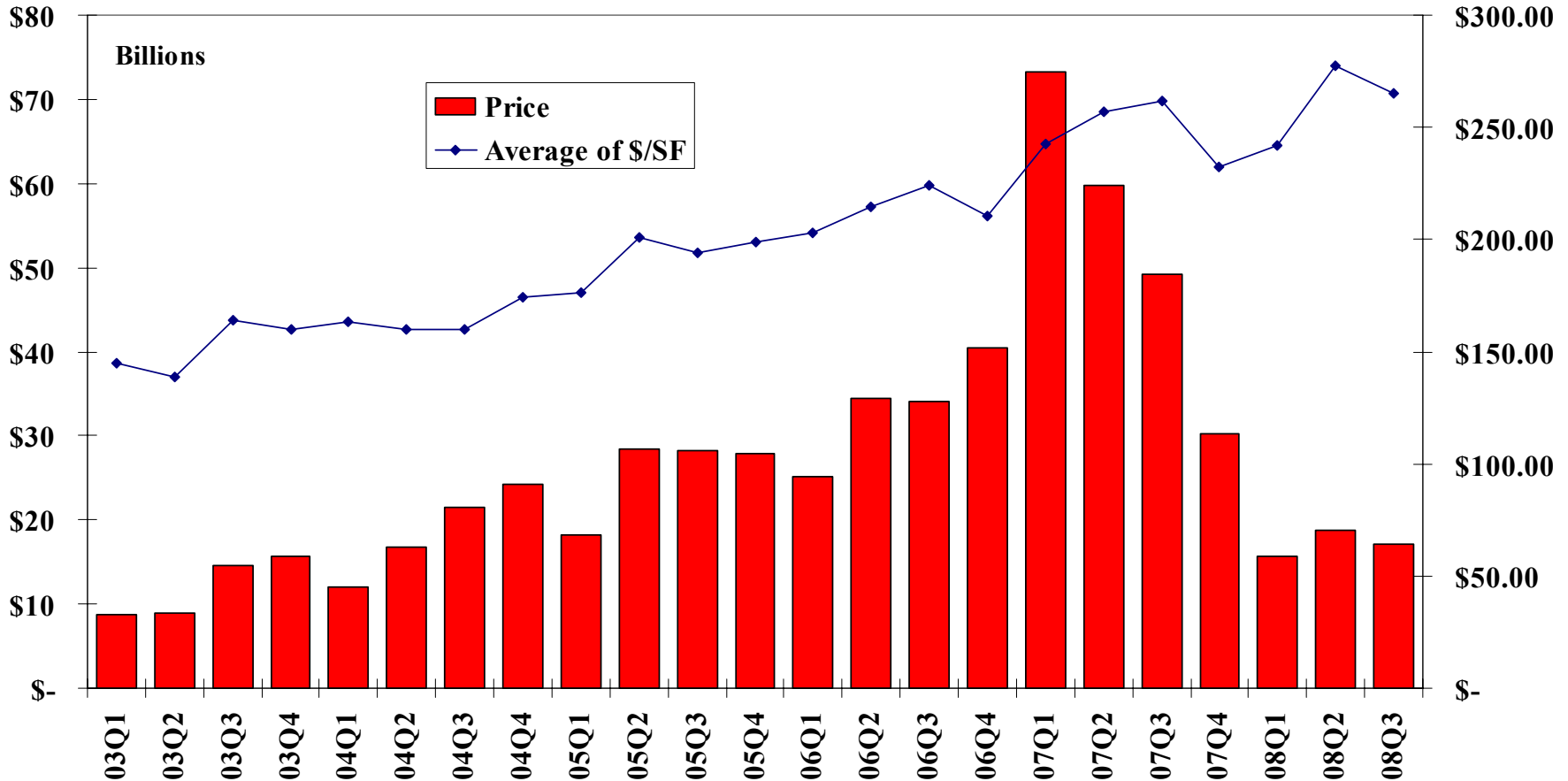


Sales Volume Trends (National)



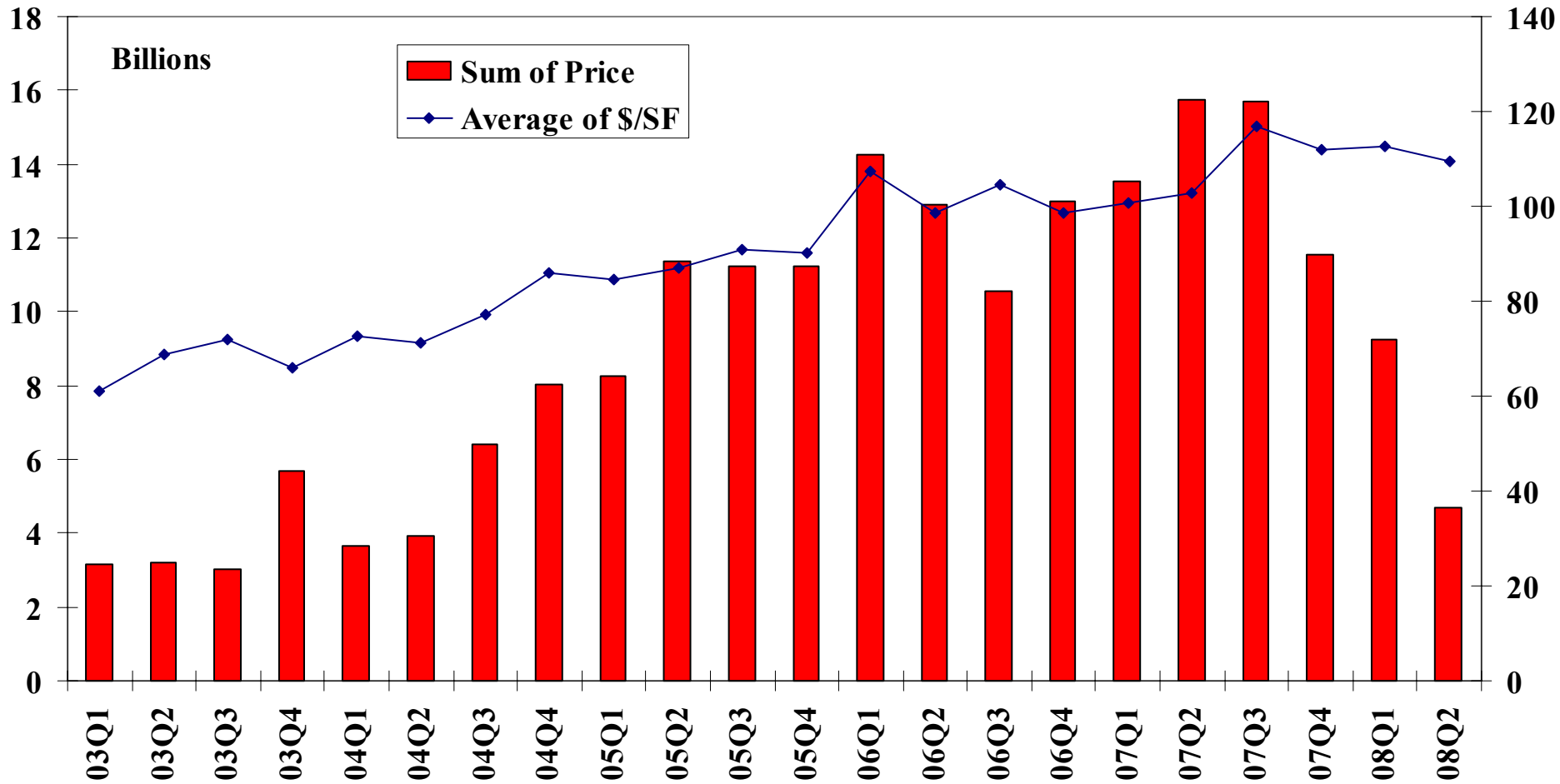
Source: Real Capital Analytics CTM 11/08, Greer Consulting

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



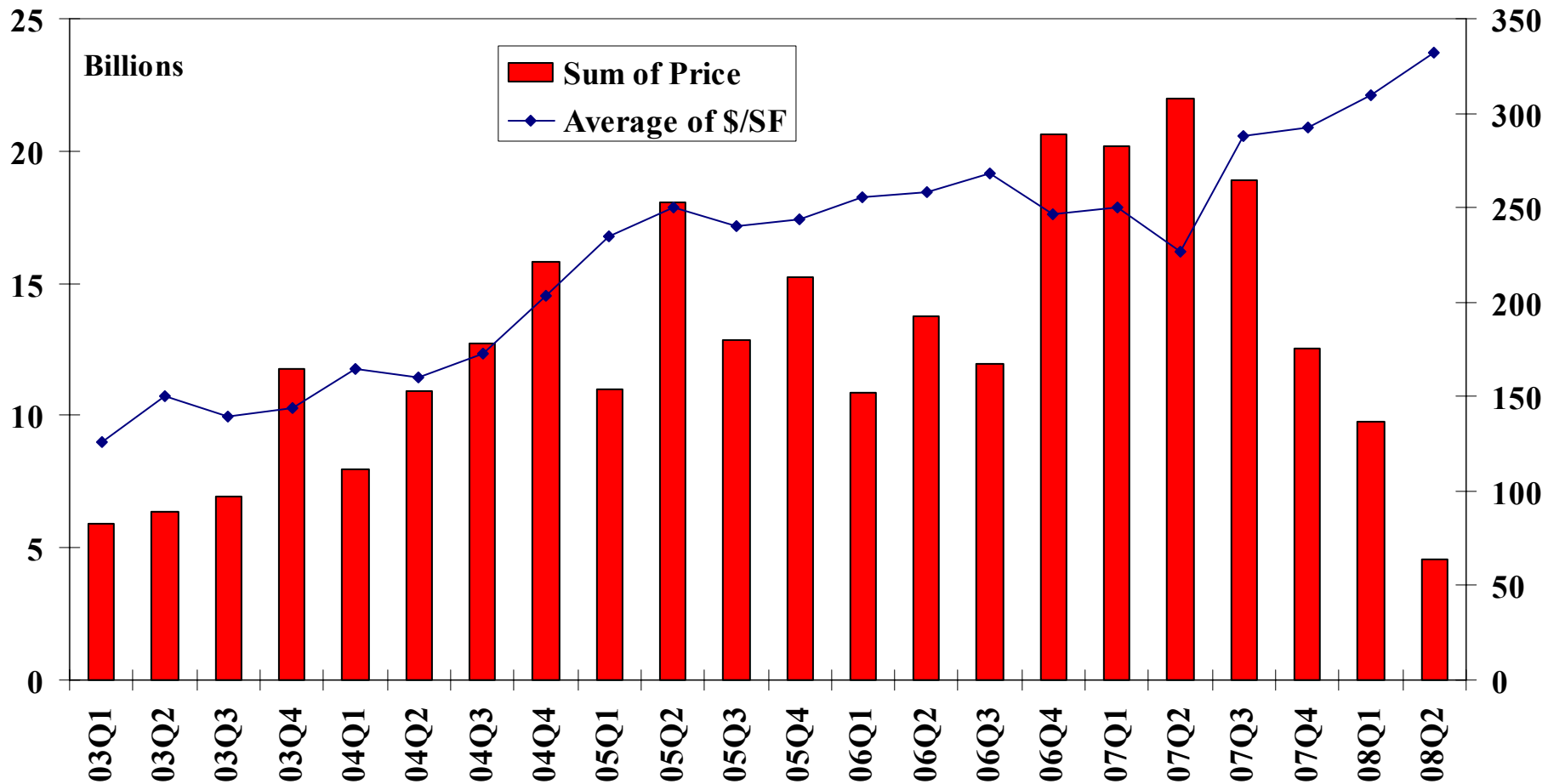
Source: Real Capital Analytics, Greer Consulting

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

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Vacancy Top / Bottom Markets – Q408**

U.S.		Off -13.9%		Ind - 11.3%		Apt 5.7%		Ret – 8.4%		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: Torto-Wheaton Research (Off, Ind, Apt, Hot), REIS (Ret)

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 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

- 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% 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 1/27/09 index stands at 37.7 (1985=100)
- Risk Curve (AAA vs BB) flattens to under 500 bps. Spread between CMBx AAA and BB stands >4,000 bps as of 1/28/09

Questions / Answers

Greer Consulting

Everett (Allen) Greer

714.743.2073

e.a.greer@alumni.usc.edu

Coming soon: <http://www.greercorp.com>