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# Wall Street and Commercial Real Estate

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Director of Research

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# 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
  - 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

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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.

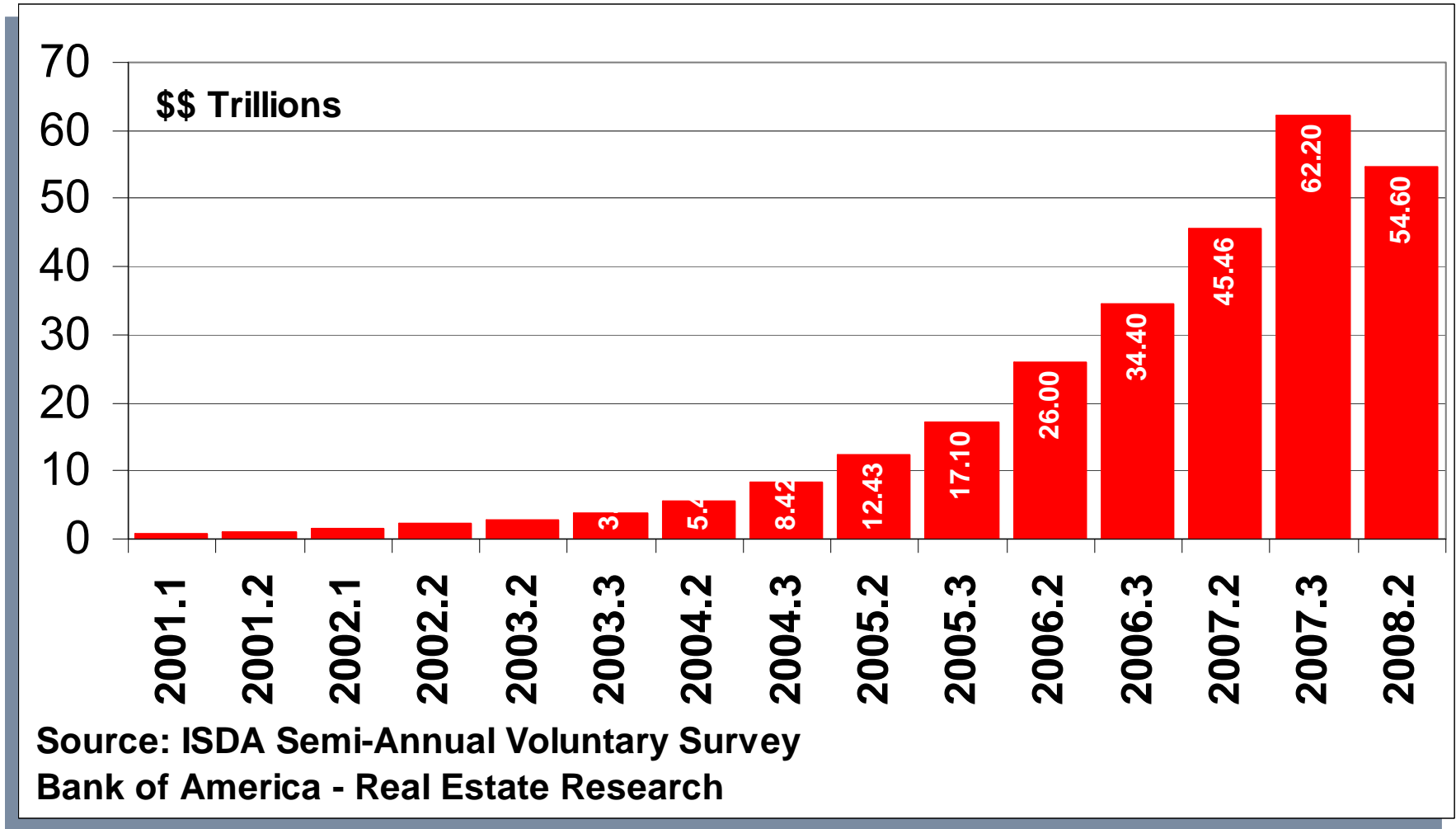
# Evolution of CDS

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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
  - Multiple facilities
  - CMBS (vertical [multi-tranche buyer] or horizontal)
  - REITs added



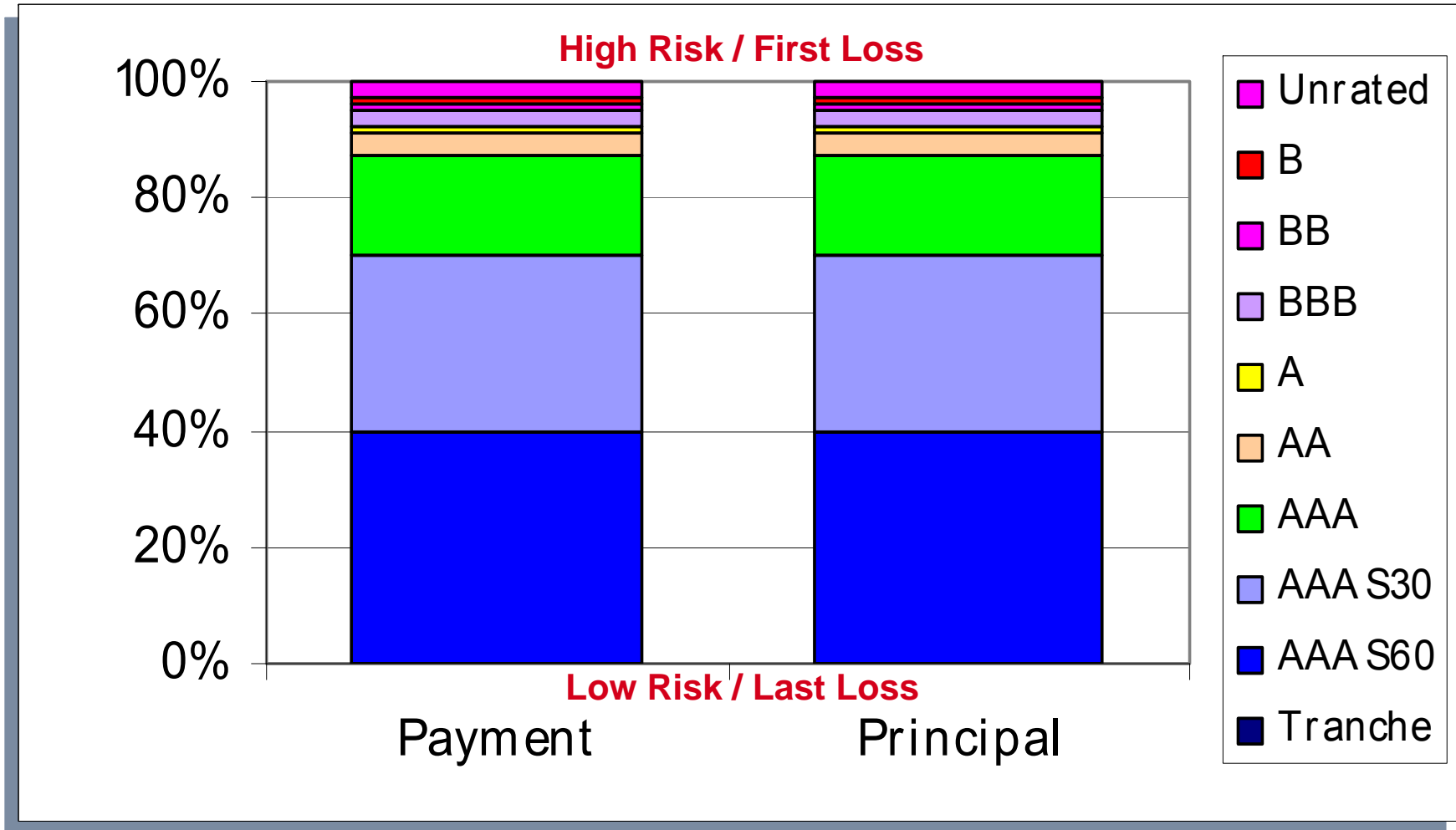
# Credit Default Swaps



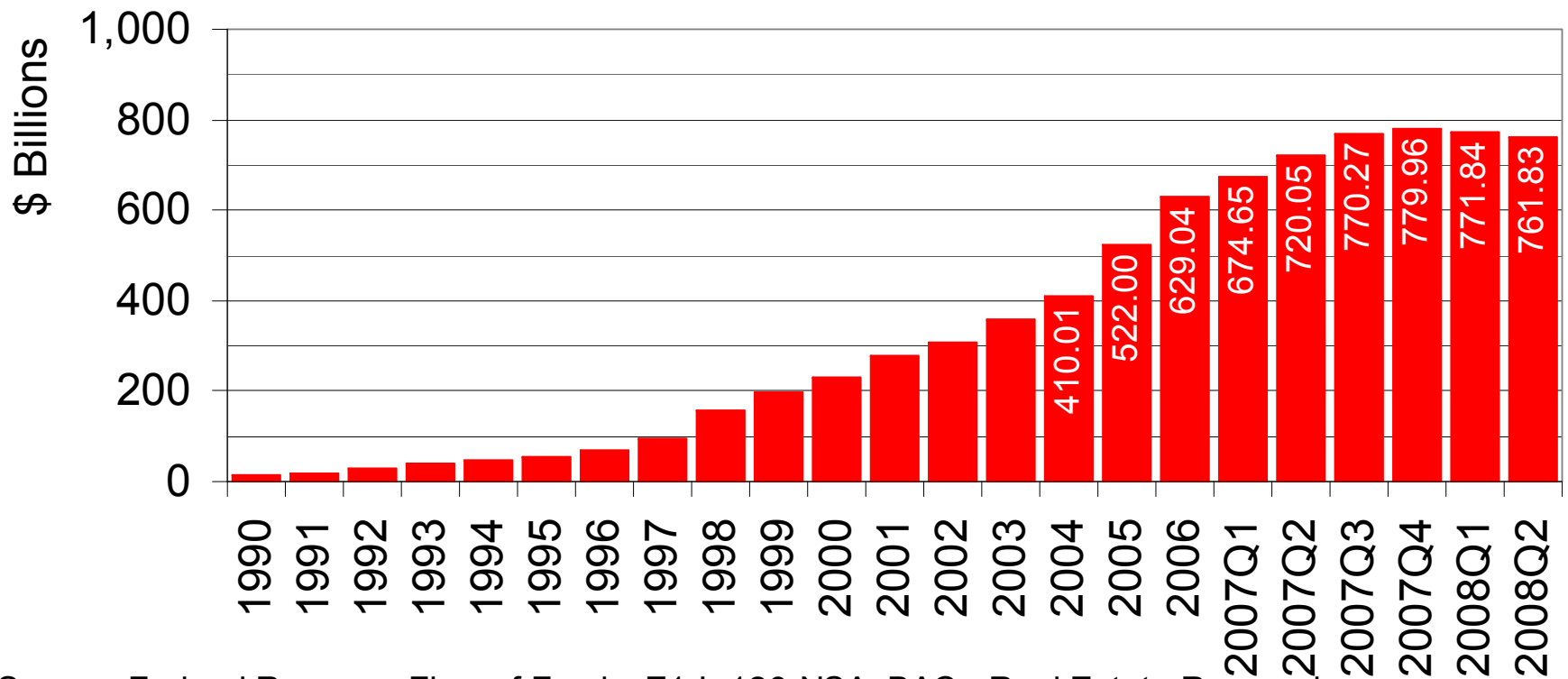
# Example of a “Typical” CMBS

		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	2008.11	Tranche	Approximate	2007.01	2008.11
0.0020	0.0200	AAA S60	60.0%	4.200%	6.000%
0.0025	0.0270	AAA S30	30.0%	4.250%	6.700%
0.0030	0.1000	AAA	12.5%	4.300%	14.000%
0.0040	0.1400	AA	9.0%	4.400%	18.000%
0.0100	0.1900	A	8.0%	5.000%	23.000%
0.0175	0.2800	BBB	5.0%	5.750%	32.000%
0.0250	0.4000	BB	4.0%	6.500%	44.000%
0.0400	0.4500	B	2.5%	8.000%	49.000%
0.0500	0.5000	Unrated	0 to <2.5%	9.000%	54.000%
			Weighted Average Yield	4.494%	11.205%
		Implied Annual Excess Return		0.256%	-6.455%
10	Note: Assumes 1% swap, agency, trust, servicer and other fees.			\$6,400,000	-\$161,375,000

# Subordination Graph



# CMBS Outstandings in U.S. - Grows

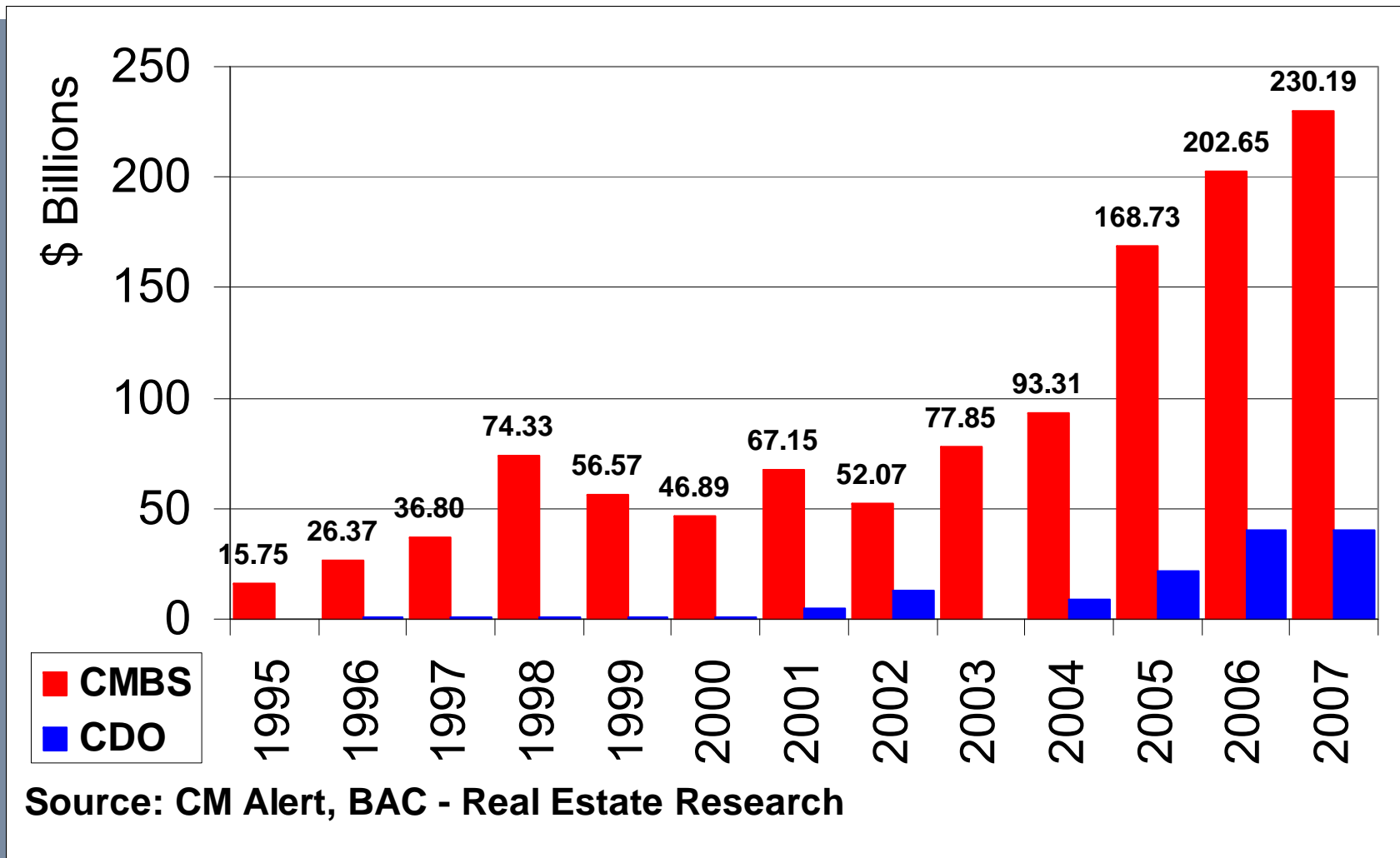


Source: Federal Reserve, Flow of Funds, Z1-L.126-NSA, BAC - Real Estate Research

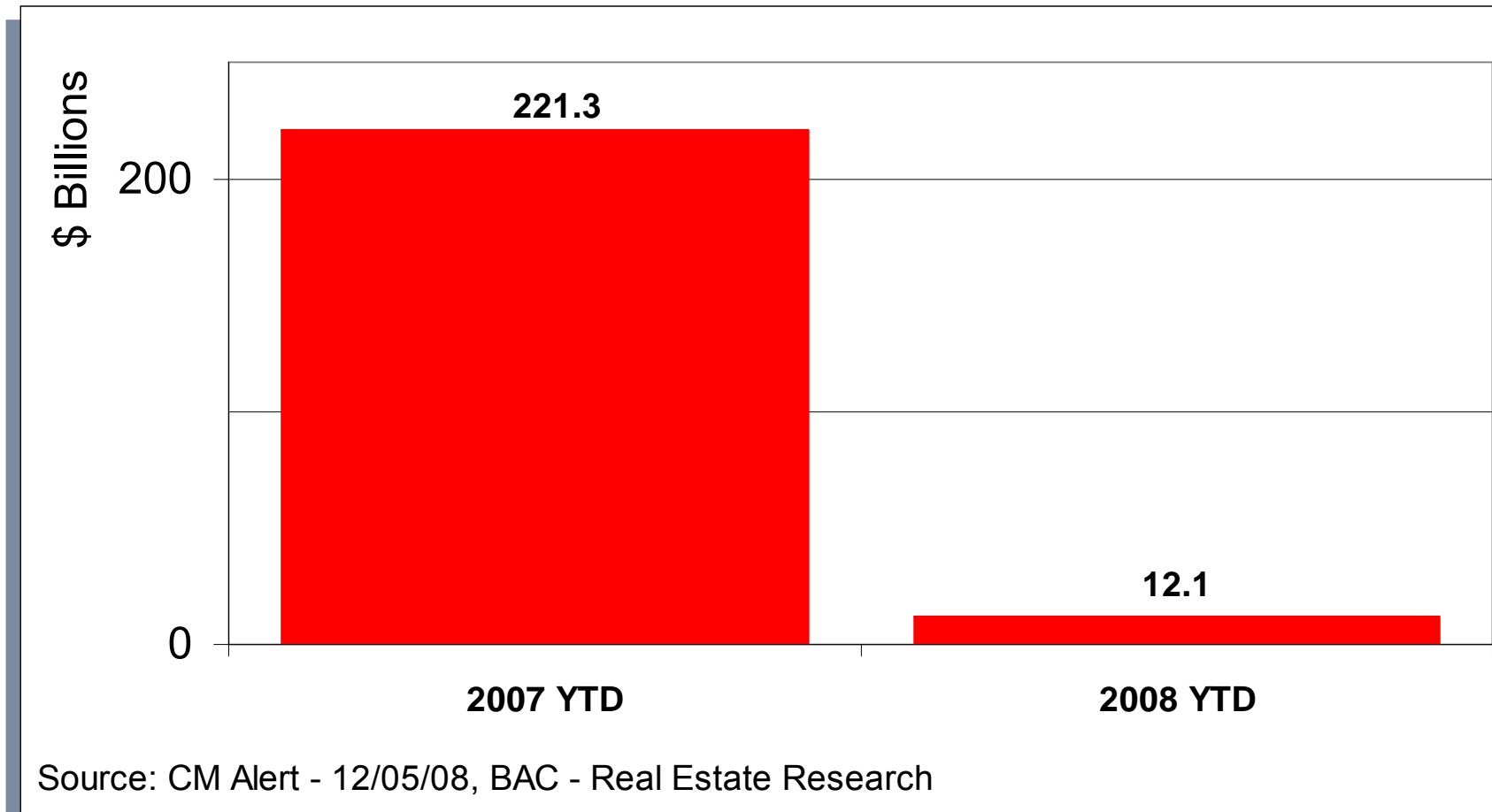
Note: Total of Multi-Family and Commercial Mortgage Asset Backed Securities.

Note: 2008Q3 release due 12/11/08

# CMBS Issuance in U.S. - Skyrockets

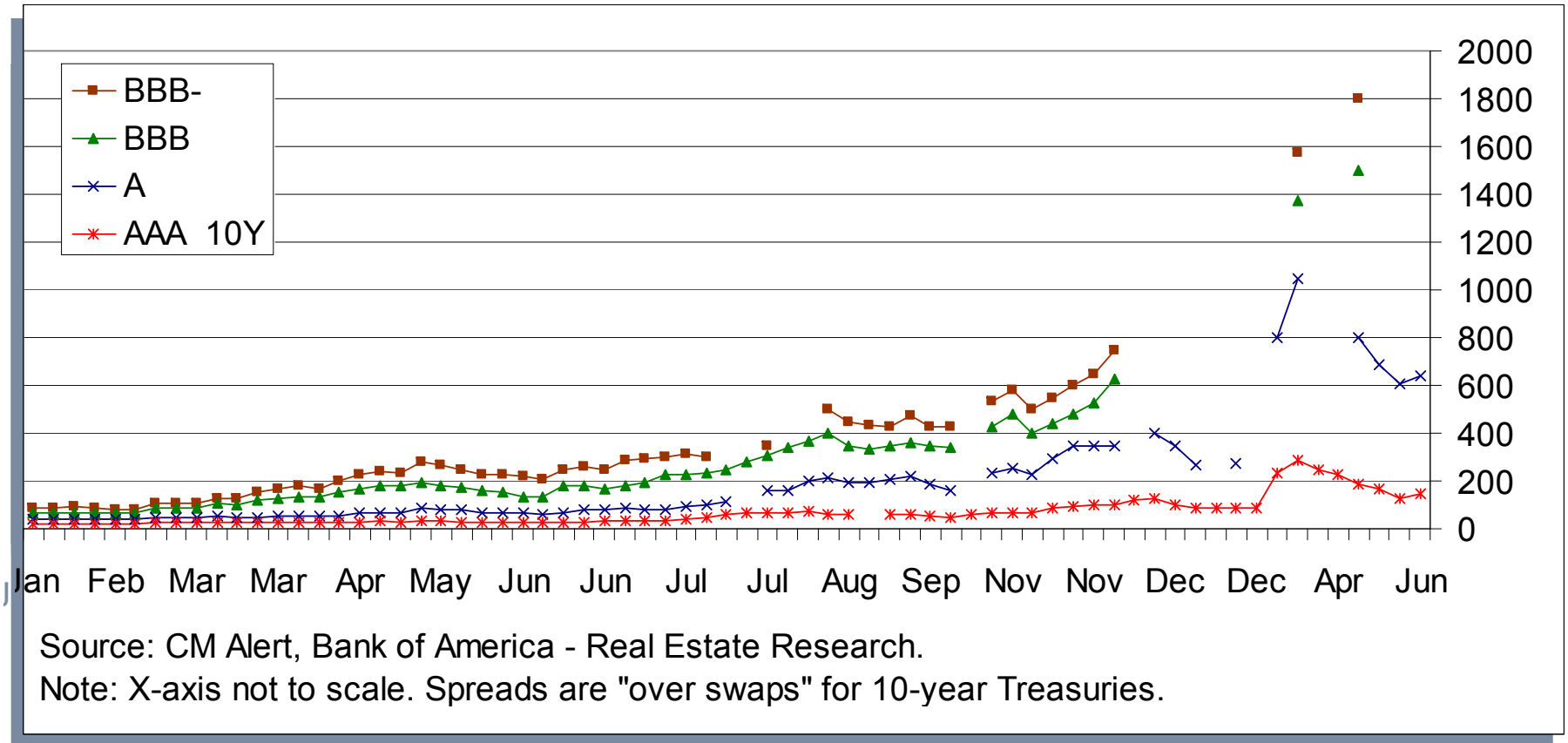


# CMBS Issuance in U.S. - 2008 Off 95% YTD



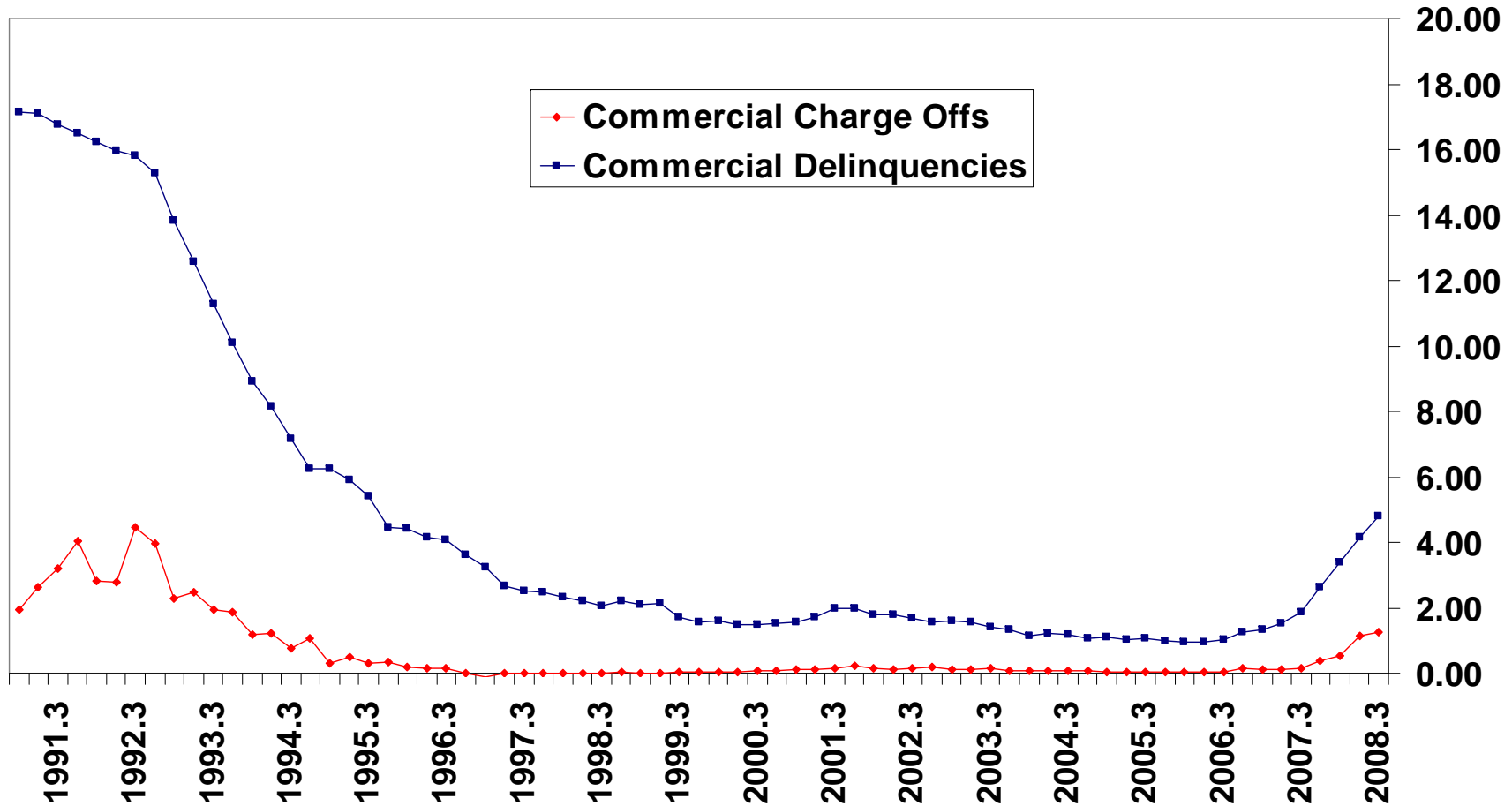
Note: Due to Thanksgiving, no issue on 11/28

# CMBS Yield Spreads (Spread to Swap)



Note: Last CMBS closed was June 29, 2008

# Commercial Real Estate Loans



Source: Federal Reserve Board, Top 100 Banks, Seasonally Adjusted



## Synthetic CMBX Yields (Spreads to Swaps)

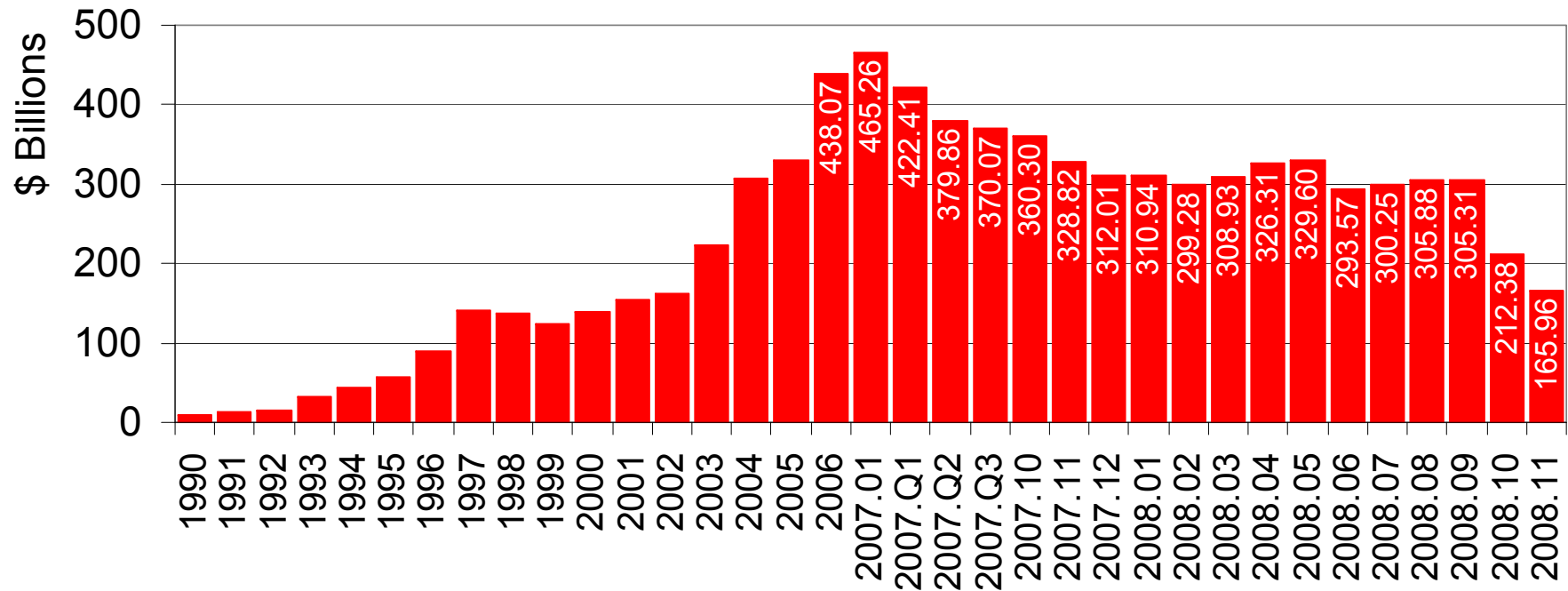
Tranche *	Yield over Swaps* 12/10/08	Approx CMBS 1/2007 **	Rise in Yields**
CMBX.5 AAA	552.50	20.0	532.50
CMBX.5 AAA AJ	1,600.50	35.0	1,565.50
CMBX.5 AA	2,058.00	45.0	2,013.00
CMBX.5 A	2,482.17	55.0	2,427.17
CMBX.5 BBB	3,290.83	70.0	3,220.83
CMBX.5 BBB-	3,530.50	85.0	3,445.50
CMBX.5 BB	4,340.50	105.0	4,235.50

Source: \*Markit, \*\*BAC Real Estate Research

# CMBS/X - Implied R.E. Yields

Tranche	Yield Spd	Suboord	Weight D	Debt	Wght T	Total
AAA Sr	552.50	29.76%	70.24%	75%	52.68%	4.75%
AAA Jr	1600.50	12.70%	17.06%	75%	12.80%	2.50%
AA	2058.00	10.63%	2.07%	75%	1.55%	0.37%
A	2482.17	8.00%	2.63%	75%	1.97%	0.56%
BBB	3290.83	4.72%	3.28%	75%	2.46%	0.90%
BBB-	3530.50	3.68%	1.04%	75%	0.78%	0.30%
BB	4340.50	2.69%	0.99%	75%	0.74%	0.35%
Unrated	5200.00	0.00%	2.69%	75%	2.02%	1.12%
			100.00%			
Class A Prop.	3500.00	100%		25%	25.00%	9.63%
Swap Rate	350.00				Total	19.31%
Class B Prop.	5200.00	100%		25%	25.00%	13.88%
Note: Class A yield assumed $\approx$ BBB-, Class B assumed 1000 bps higher					Total	24.72%

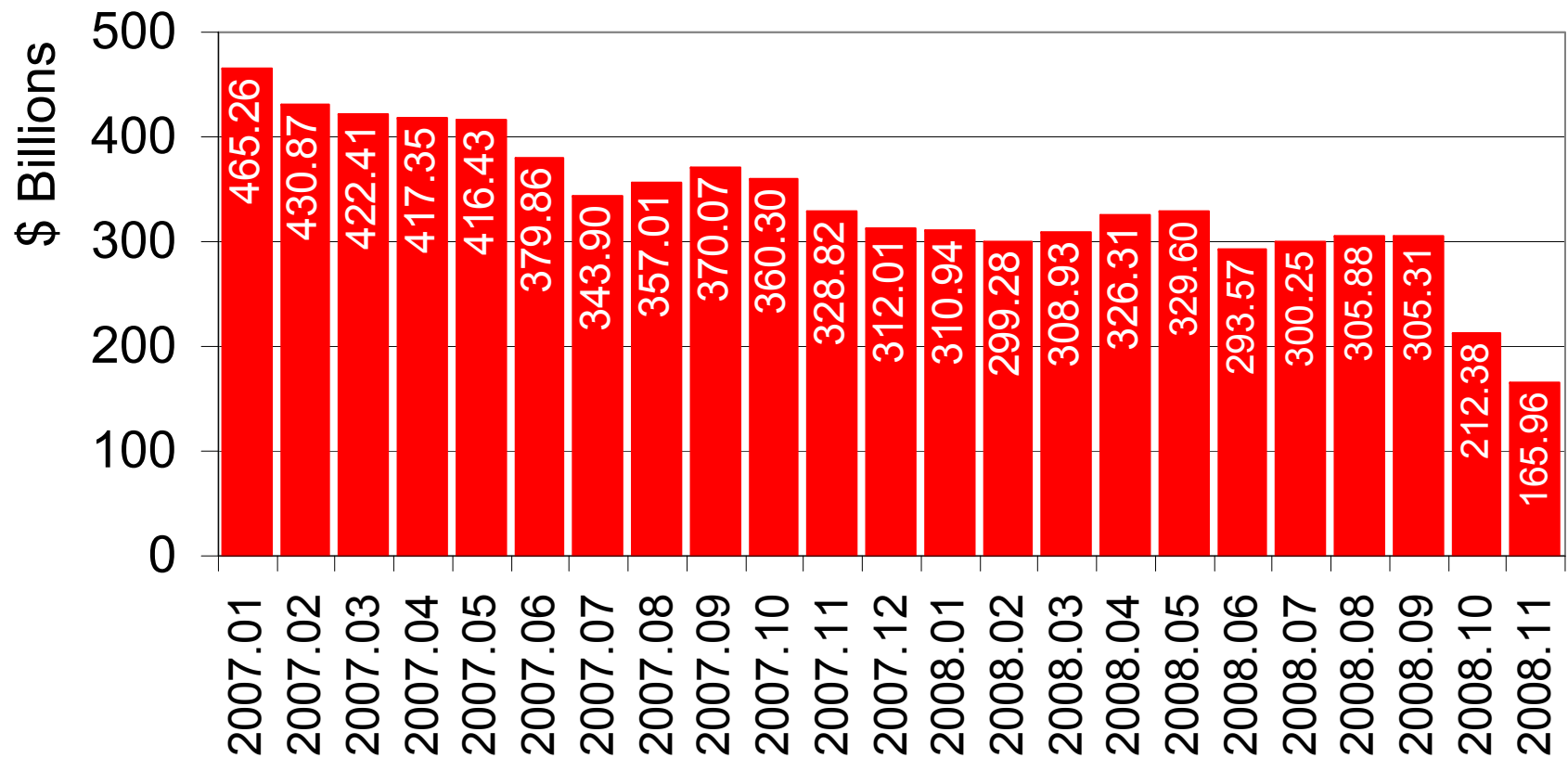
# REIT Market Capitalization



Source: NAREIT, Bank of America Real Estate Research

Note: Includes Equity, Debt and Hybrid REITS

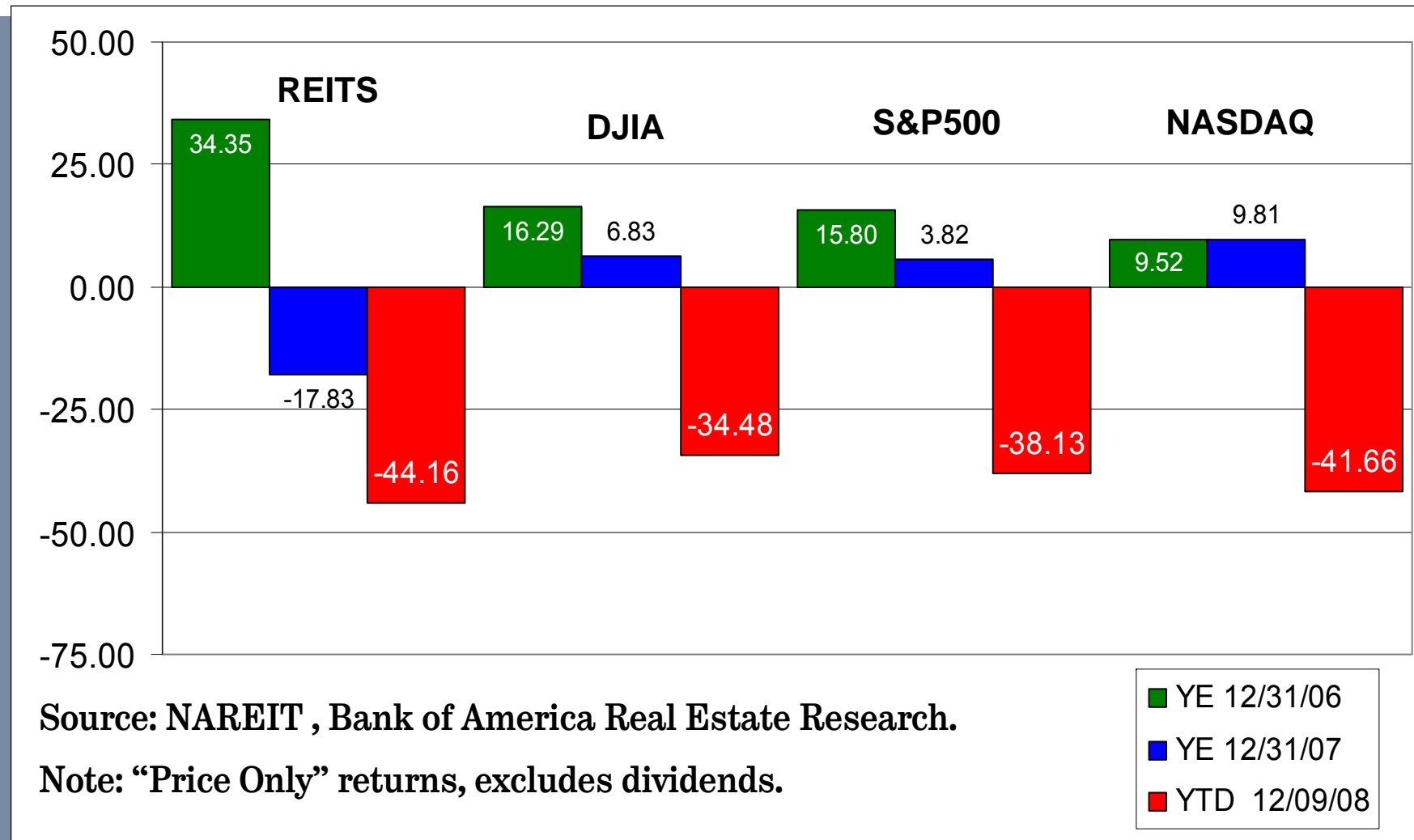
# REITs Lose \$299 Billion or 64% of value



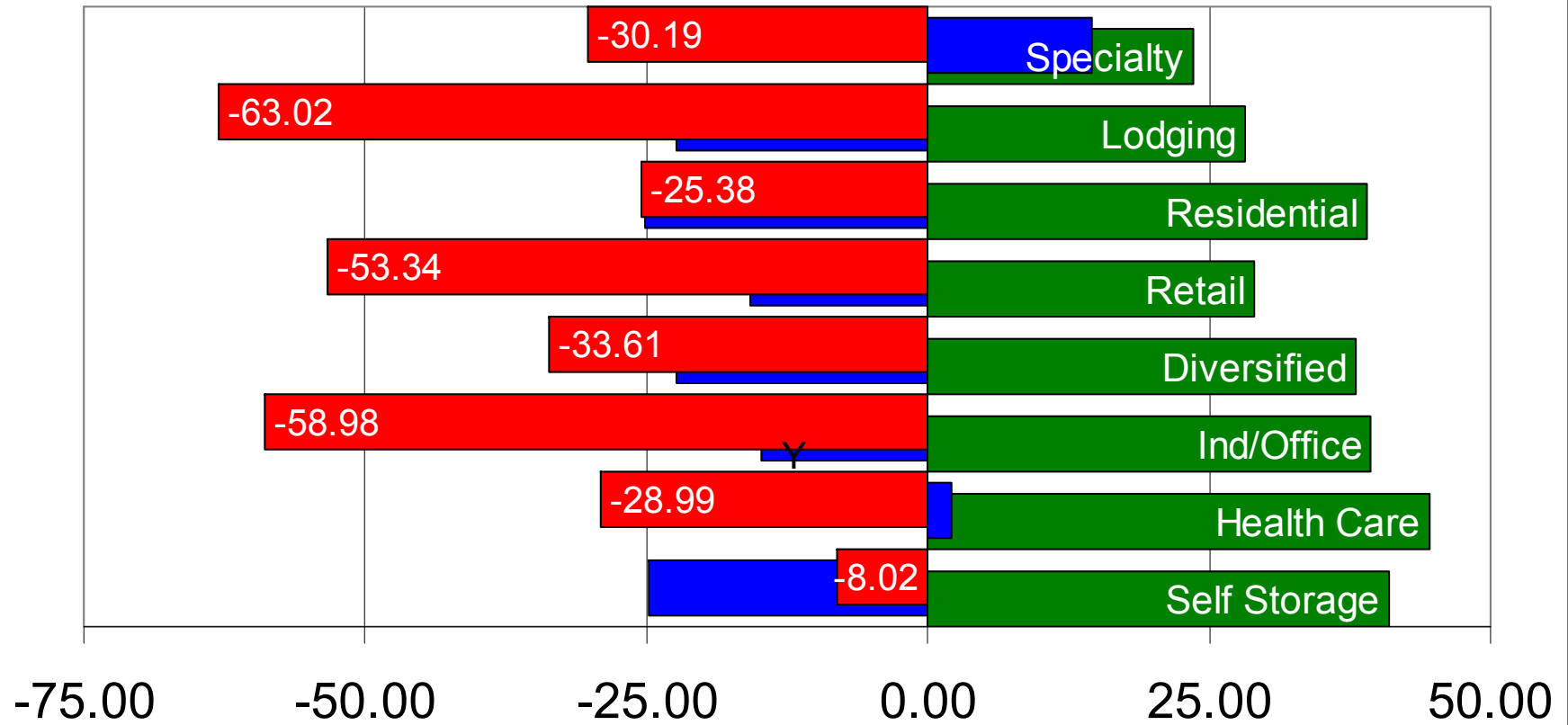
Source: NAREIT, Bank of America - Real Estate Research

Note: Includes Equity, Debt and Hybrid REITS

# Benchmark Returns — Changes so Fast!

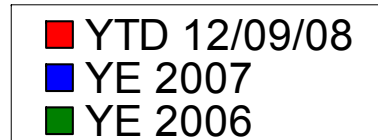


# REIT Property Type Returns — Old vs. New

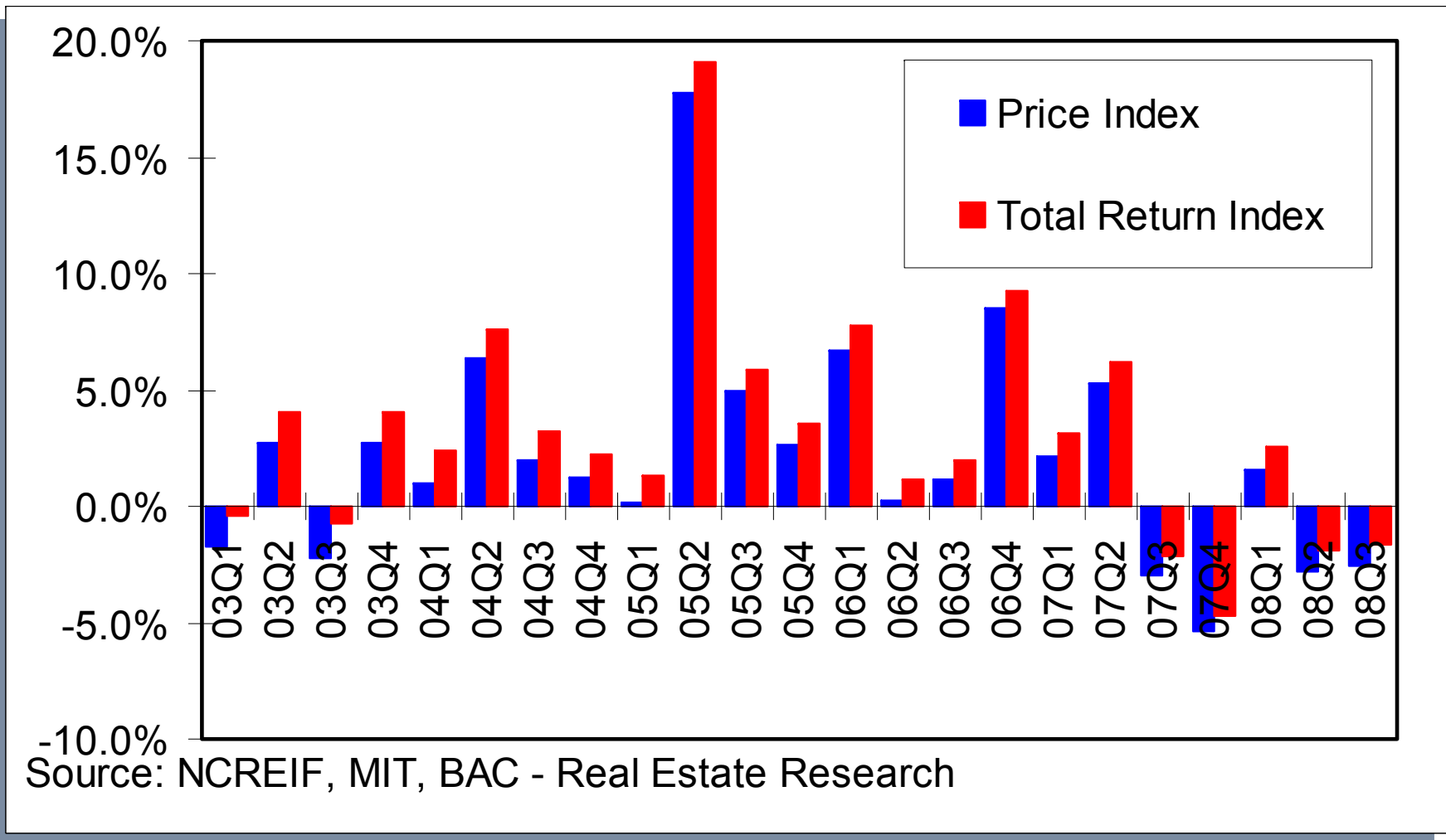


Source: NAREIT, Bank of America Real Estate Research.

Note: "Price Only" returns, excludes dividends.



# NCREIF 08.Q3 Price Down/ Total Down



# Value Fundamentals

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CMBS Market is Effectively Broken = Opportunities

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

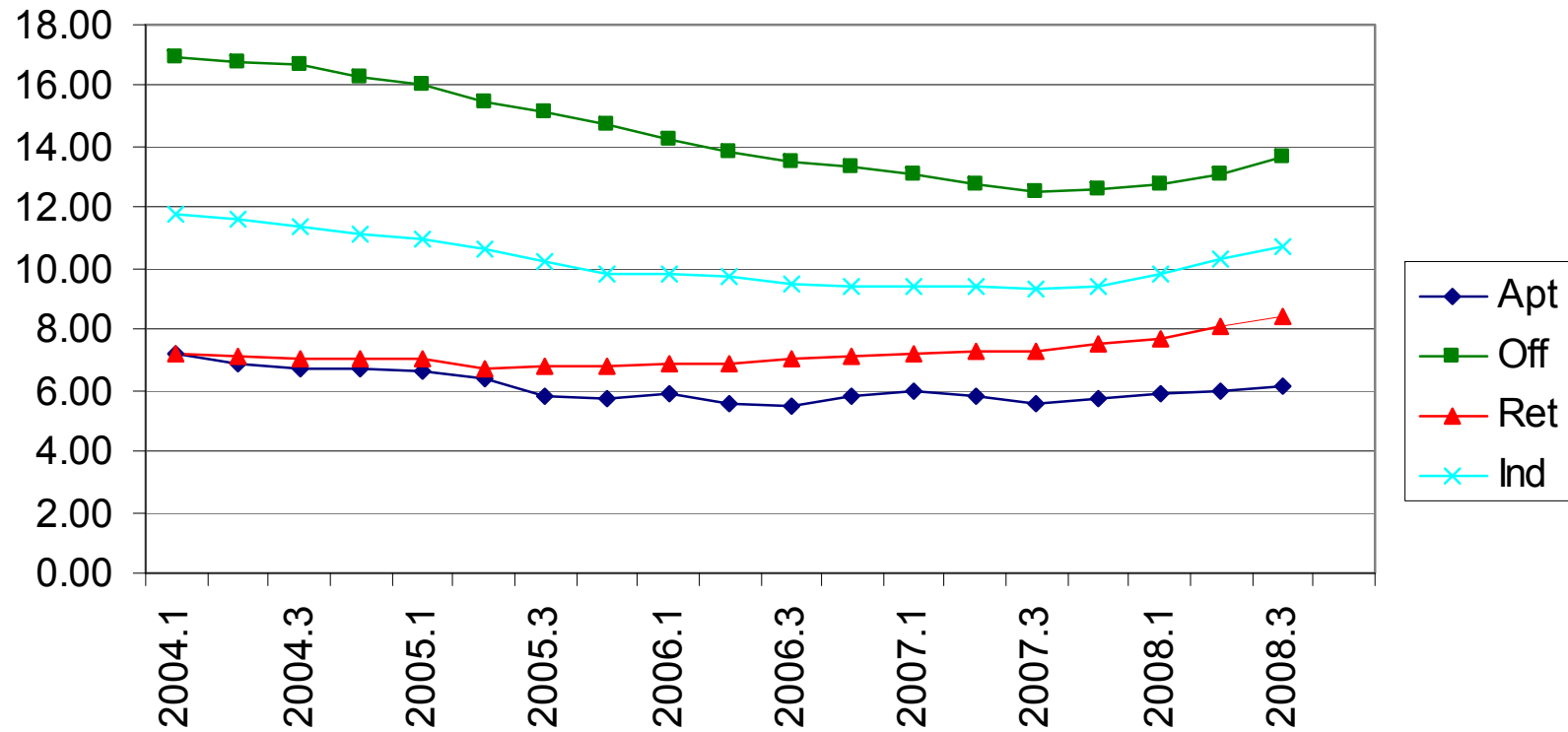
REITS are “Off” more than 50% = Opportunities

NCREIF is nearly Flat (down 2-3%)

Market Change brings Opportunities!

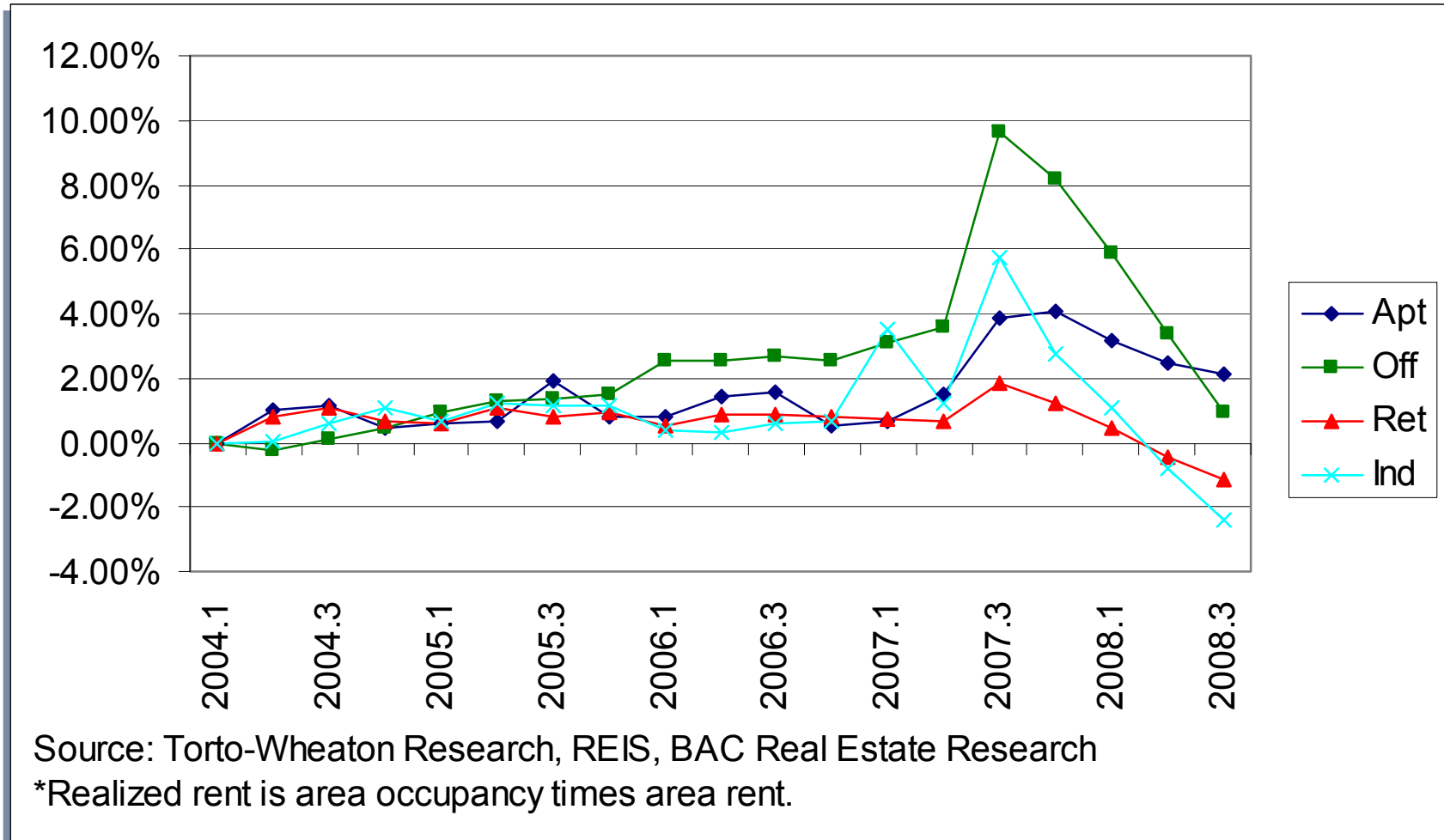


# National Trend — Vacancy

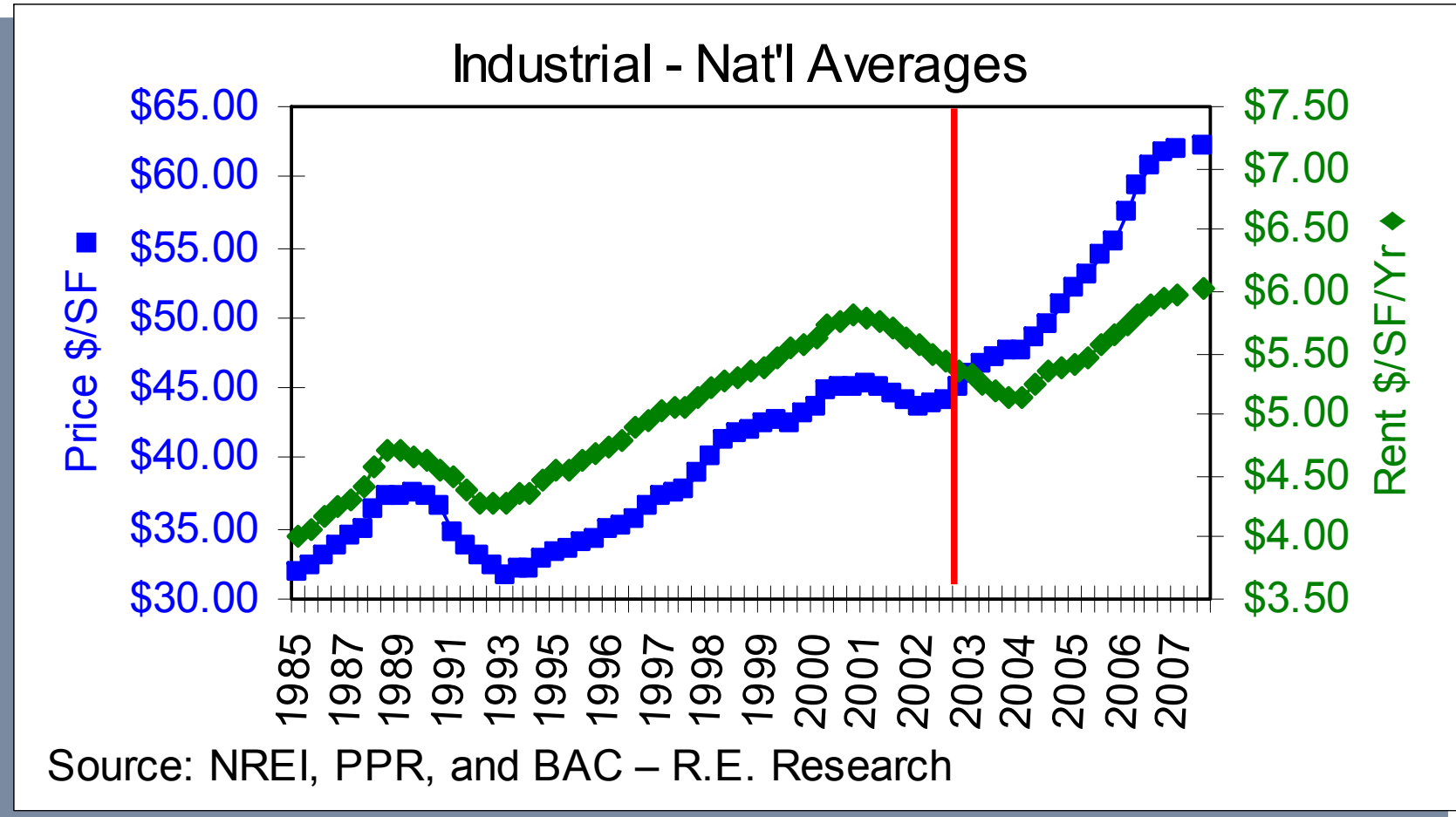


Source: Torto-Wheaton Research, REIS, BAC Real Estate Research

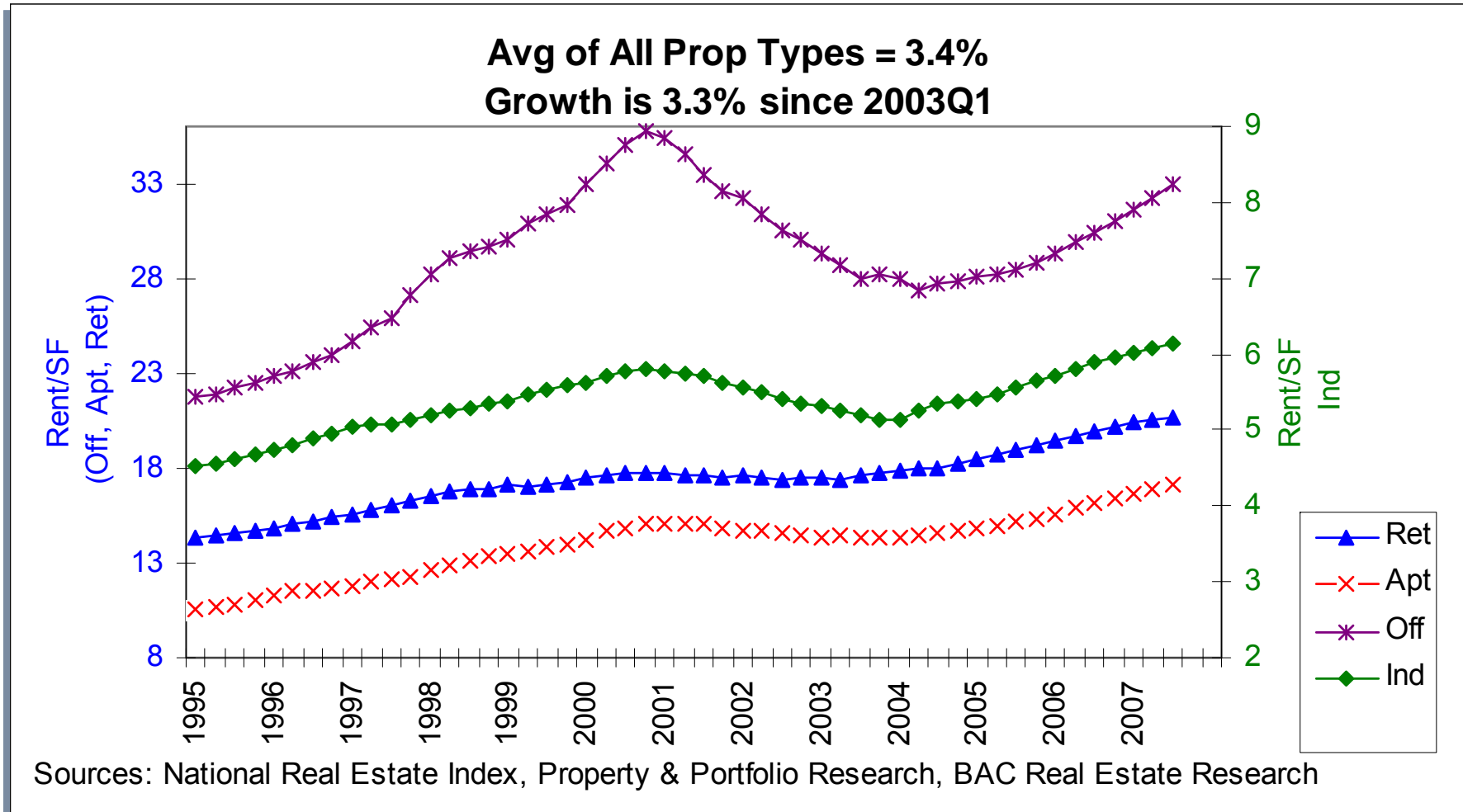
# Realized Rents



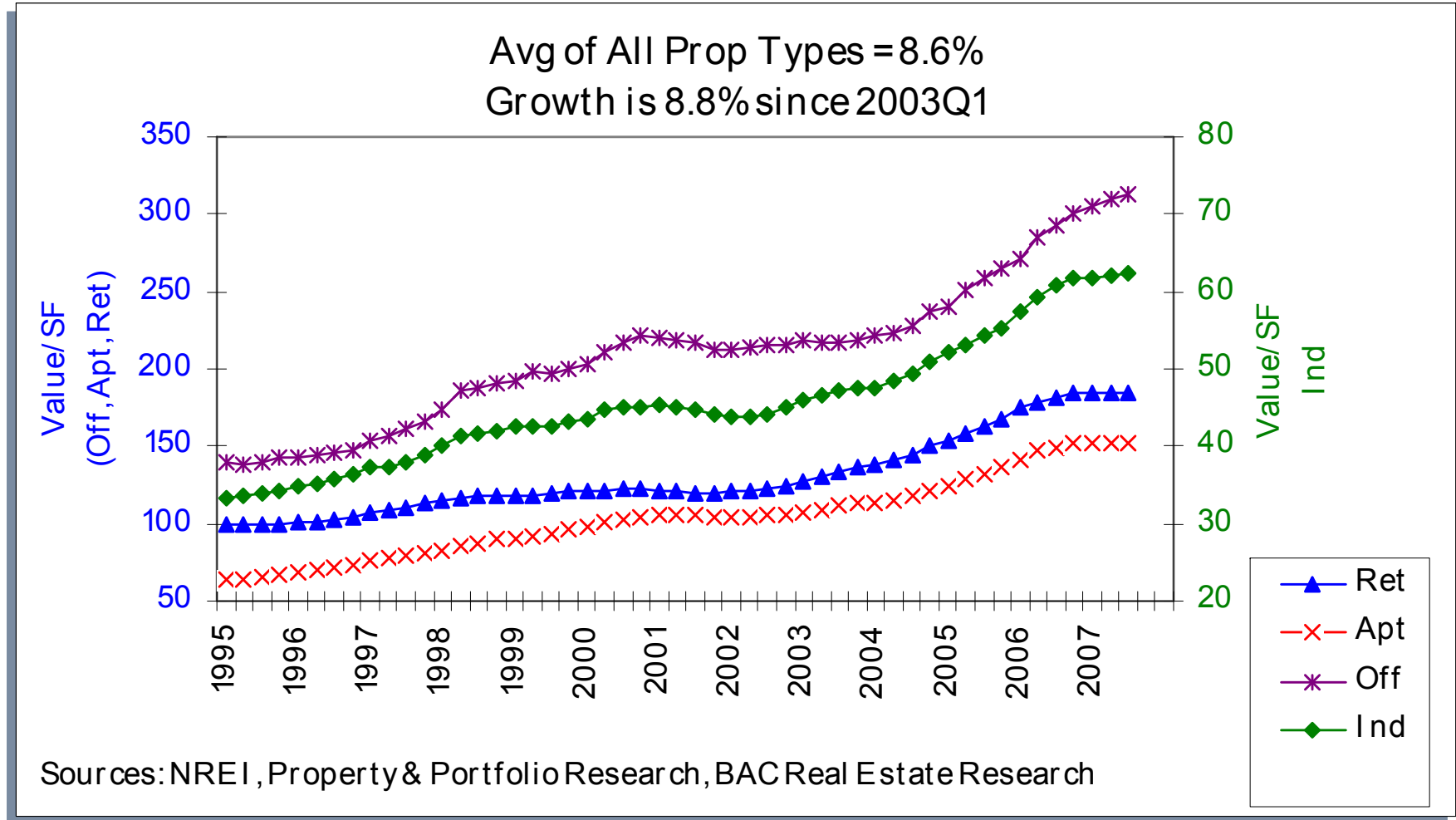
# The Relationship Breaks in 2003



# Market Trends — National Rents



# Market Trends — National Values

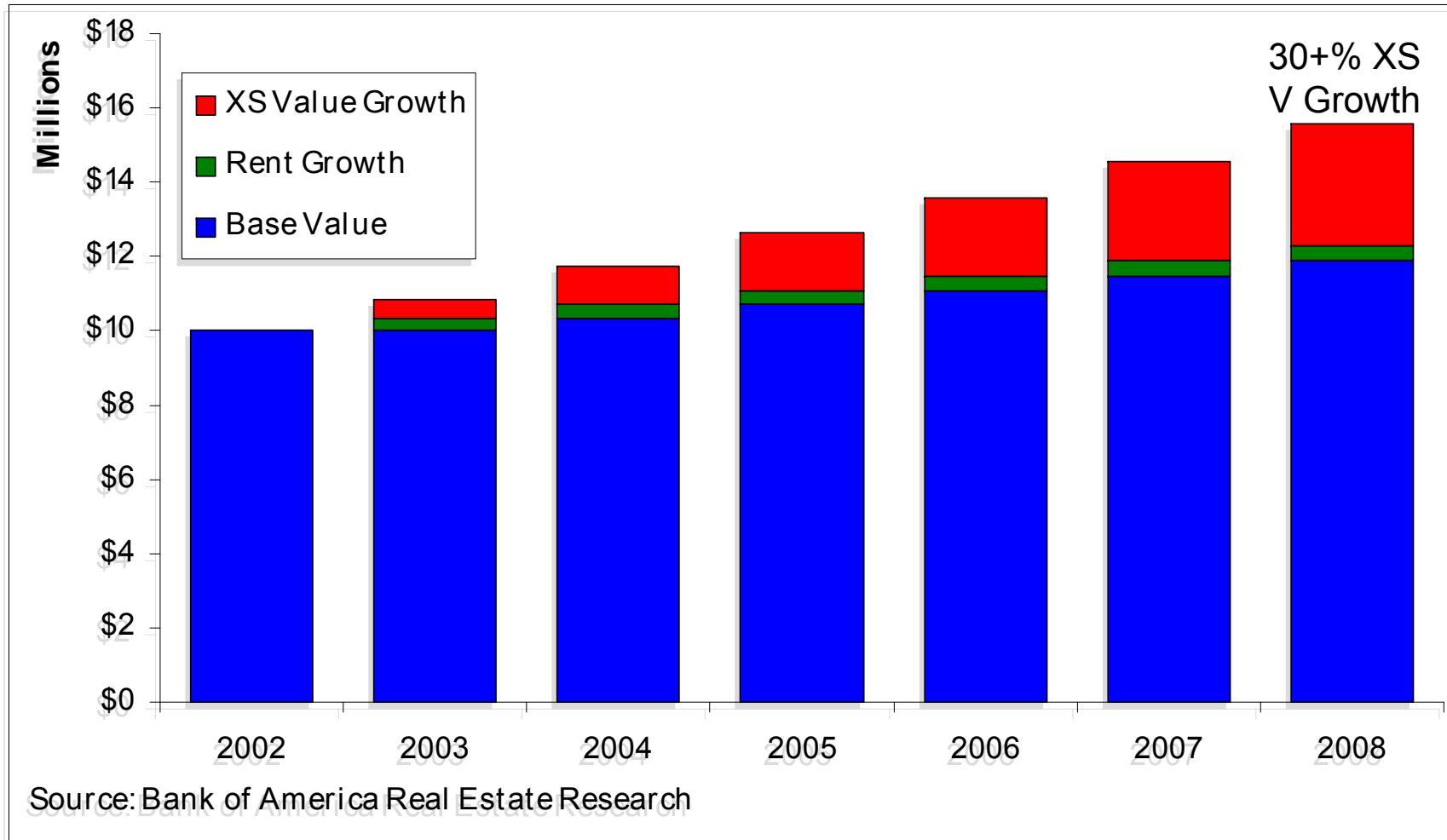


## Growth Example — Value vs. Income

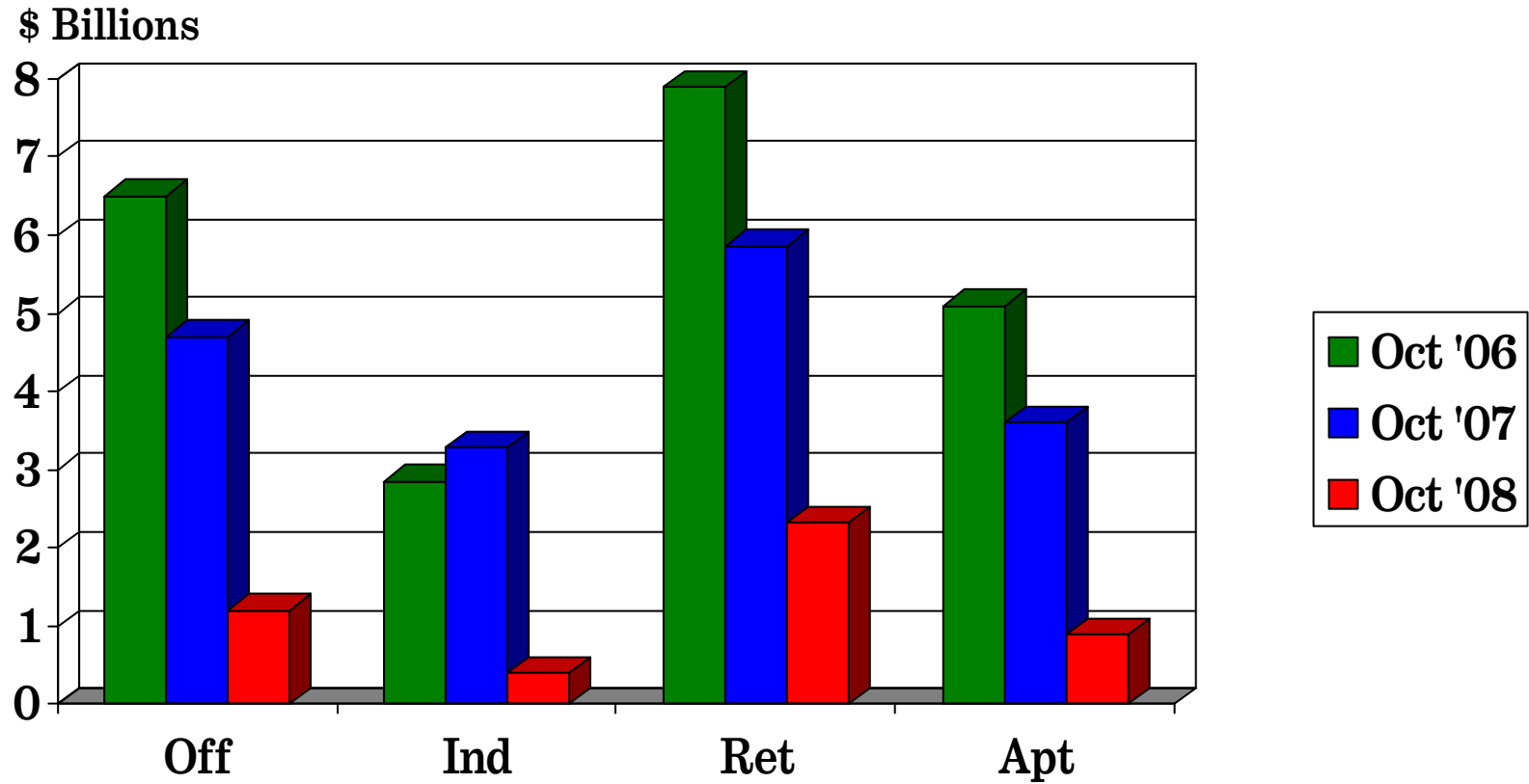
Year	Rent	RentG	Ind Cap	Value
2002	750,000	3.30%	7.50%	\$10,000,000
2003	774,750	3.30%	7.12%	\$10,880,000
2004	800,317	3.30%	6.76%	\$11,837,440
2005	826,727	3.30%	6.42%	\$12,879,135
2006	854,009	3.30%	6.09%	\$14,012,499
2007	882,192	3.30%	5.79%	\$15,245,598
2008	911,304	3.30%	5.49%	\$16,587,211
	average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



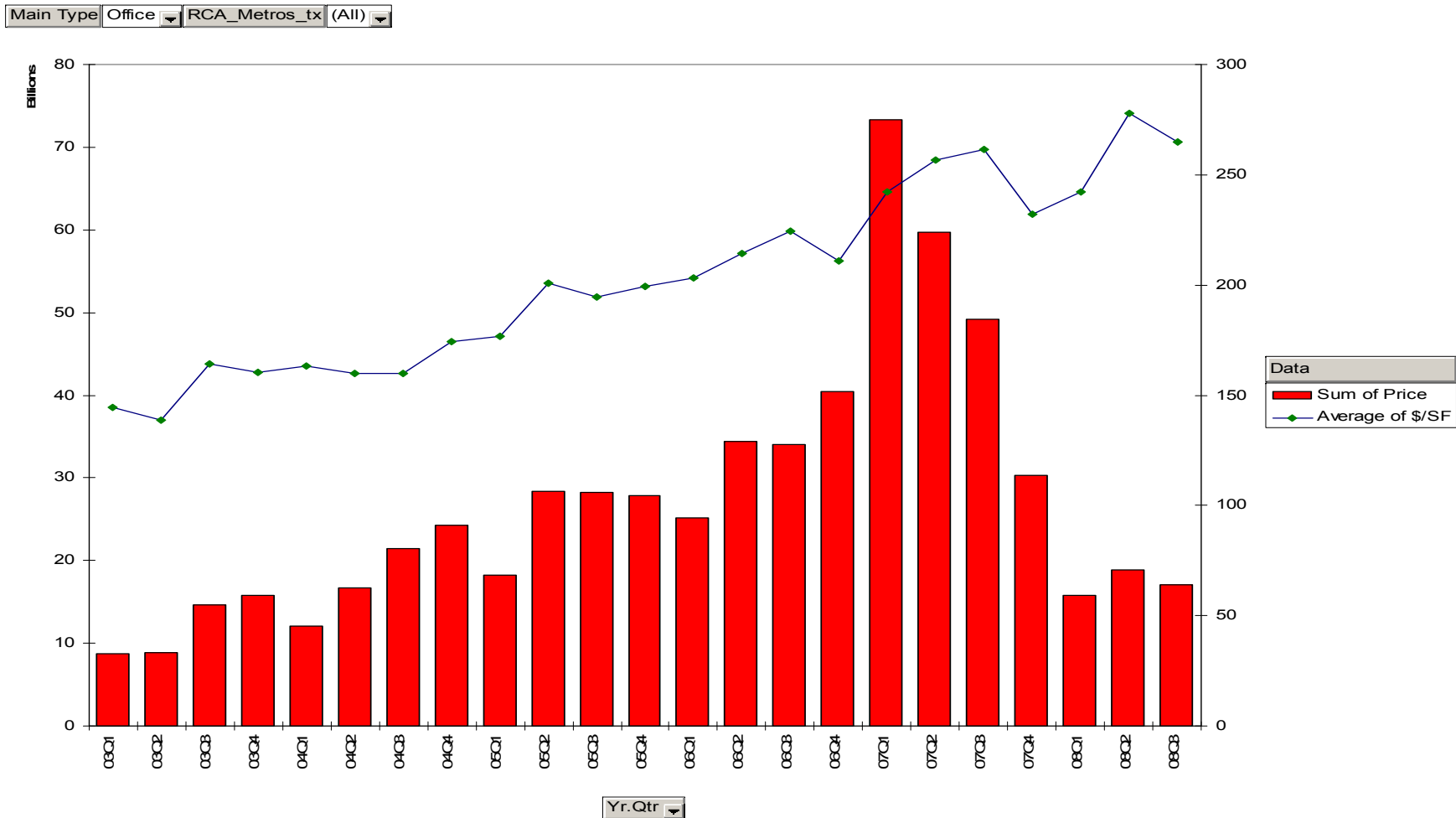
# Sales Volume Trends (National)



Source: Real Capital Analytics CTM 11/08, Bank of America Real Estate Research

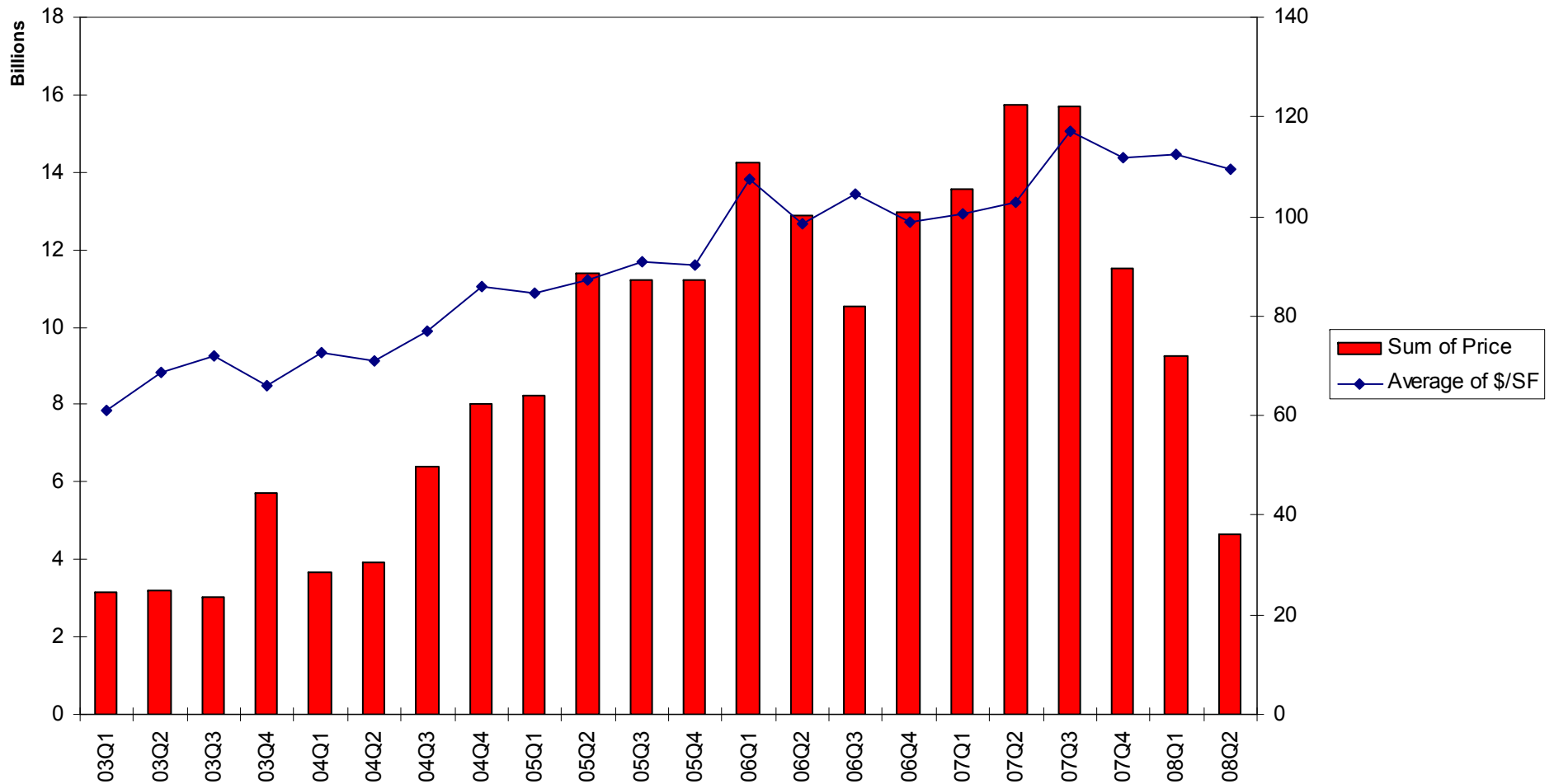


# Sales Trends - Office - 75% Q3 '08 vs. '07



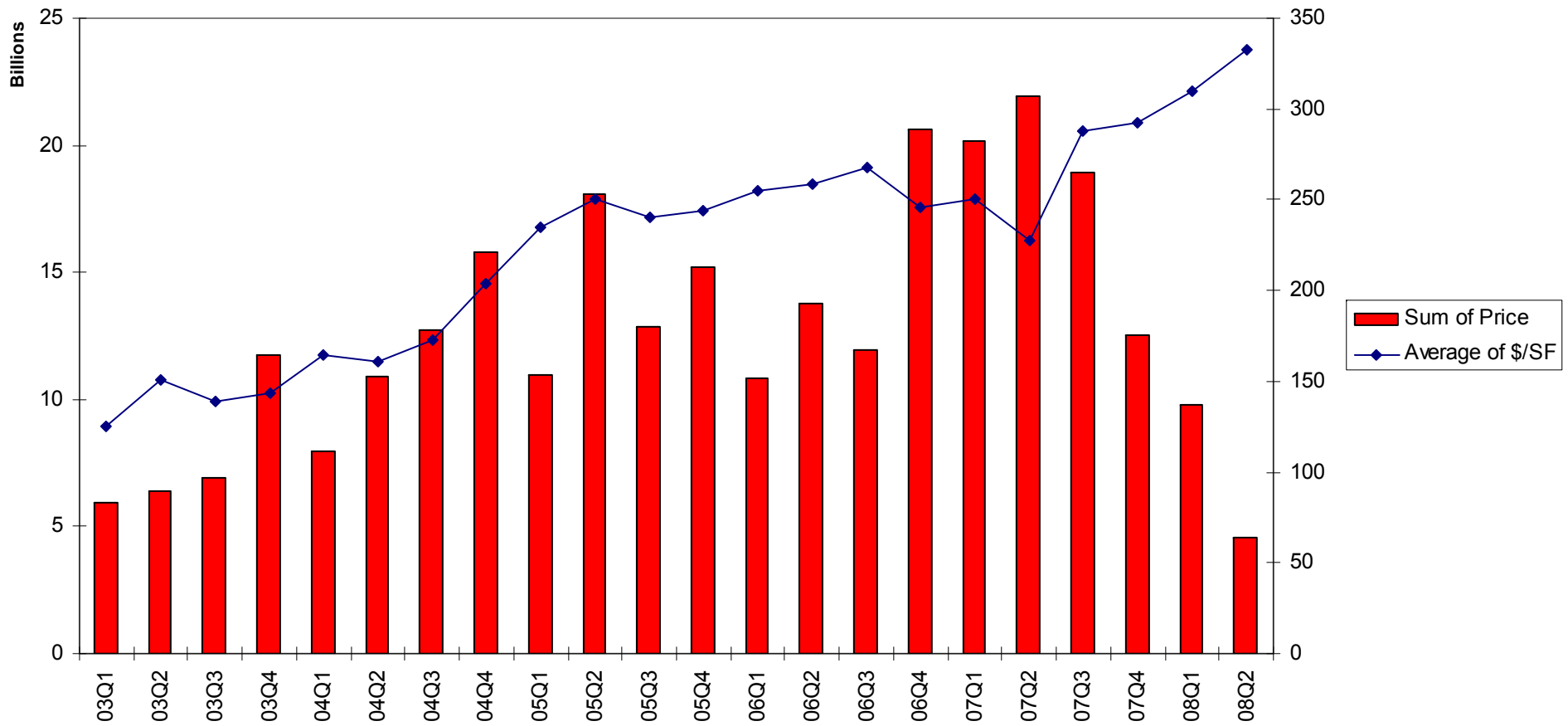
Source: Real Capital Analytics, Bank of America Real Estate Research

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



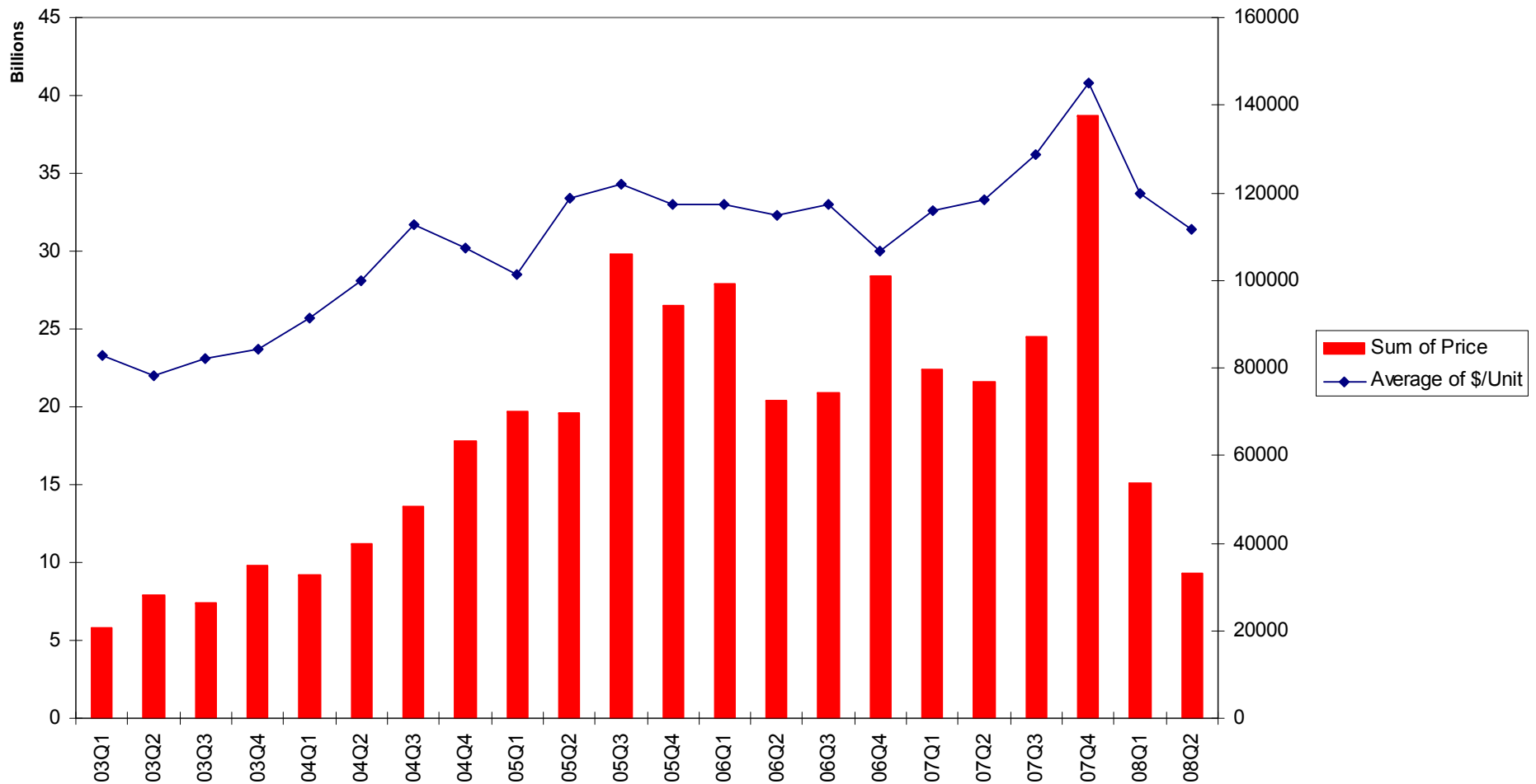
Source: Real Capital Analytics, Bank of America Real Estate Research

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



Source: Real Capital Analytics, Bank of America Real Estate Research

# Sales Trends - Apt - 49% Q3 '08 vs. '07



Source: Real Capital Analytics, Bank of America Real Estate Research

# Vacancy - Top / Bottom Markets - '08Q3....

U.S.		Off - 13.4%		Ind - 10.7%		Apt - 5.8%		Ret - 8.4%		Hot* - 68.2%	
Top	1	New York	6.2	Los Angeles	5.4	Pittsburgh	2.7	Fairfield	3.6	San Francisco	85.4
	2	Honolulu	9.2	Salt Lake City	6.3	Newark	3.4	San Jose	3.8	New York	85.0
	3	San Francisco	9.7	Tucson	6.4	San Diego	3.4	Los Angeles	3.9	Seattle	81.3
	4	Long Island	9.9	Houston	7.0	Oakland	3.5	Orange Cty	3.9	Long Island	79.7
	5	Seattle	9.9	San Francisco	7.1	Edison	3.6	N New Jersey	4.0	Portland	77.9
Bottom	5	W Palm Bch	19.2	Stamford	15.9	Dayton	8.2	Cincinnati	14.4	New 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	West Palm Be	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	Jacksonville	10.0	Birmingham	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)  
BAC-Real Estate Research; \* Hotel = Occupancy

## Vacancy Performance - 08Q3

Prop Type	08Q3 National	08Q3 Los Angeles	LA Rank
Office *	13.4%	11.7%	10 : 58
Industrial *	10.7%	5.4%	1 : 59
Retail **	8.4%	3.9%	1 : 80
Apartment *	5.8%	4.4%	11 : 60
Hotel *	68.2%	75.8%	9 : 53

Source: \* Torto Wheaton Research, \*\*REIS,  
BAC-Real Estate Research

Note: Hotel = Occupancy

# Quote of the Day

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

~~NY Yankee #8, Yogi Berra~~

Niels Bohr

Nobel Laureate, 1922



# Conclusions

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- CMBS Market – Spreads 10-50x Higher – R.E. Yields Double
- CMBS - New Business Model will Come
- REIT Industry – Down 60+ Percent
- NACREIF – Mixed Signals
- Many Lenders have Closed or Reduced Lending Volume
- Financing Costs Have Risen; Capitalization / Yield Rates
- CASH IS KING
- Value Growth (appreciation) will Lag Rent Growth
- Rents/Vacancies will remain better than early 1990s
- Value(s) Will Undergo Correction

.....see next slide!



# Greer - 3 Year Forecast as of 11/2008

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- Borrowing Rates for Commercial Real Estate will Rise
- Margins (to Treasury) for Commercial RE Loans will rise 200 bps 2008-09, will settle to 300± 50bps over 10 year Treas.
- Rent Growth will lag CPI by 0 to 5%
- Value Growth will lag Rent Growth 30-35% over 2-3 years
- Values (National Average) will Fall 5-15% per year for next 2-3 years. Individual market performance will vary widely, with “extreme” markets performing several times better (or worse) compared to the National Average.
- Capitalization Rates will Rise 2.0-3.0% over next 3 years (eg 5.0% become 7.25% = 30%+/- decline in value)
- Declines: #1 Retail, #2 Industrial & Office, then Apartment
- Change Creates OPPORTUNITIES!!!!

**Bank of America**

