

# Moody's/REAL Commercial Property Price Indices, December 2009

**AUTHORS:**

Nick Levidy  
 Managing Director  
 (212) 553-4595  
 Nick.Levidy@moodys.com

Andrea Daniels  
 VP-Sr Credit Officer  
 (212) 553-4416  
 Andrea.Daniels@moodys.com

Connie Petruzzello  
 AVP-Analyst  
 (212) 553-4894  
 Concetta.Petruzzello@moodys.com

Seth Anspach  
 Senior Associate  
 (212) 553-7896  
 Seth.Anspach@moodys.com

**MOODY'S CLIENT SERVICES:**

*New York*  
 +1-212-553-1653

*Tokyo*  
 +81-3-5408-4100

*London*  
 +44-20-7772-5454

*Hong Kong*  
 +852-3551-3077

*Sydney*  
 +61-2-9270-8100

*Singapore*  
 +65-6398-8308

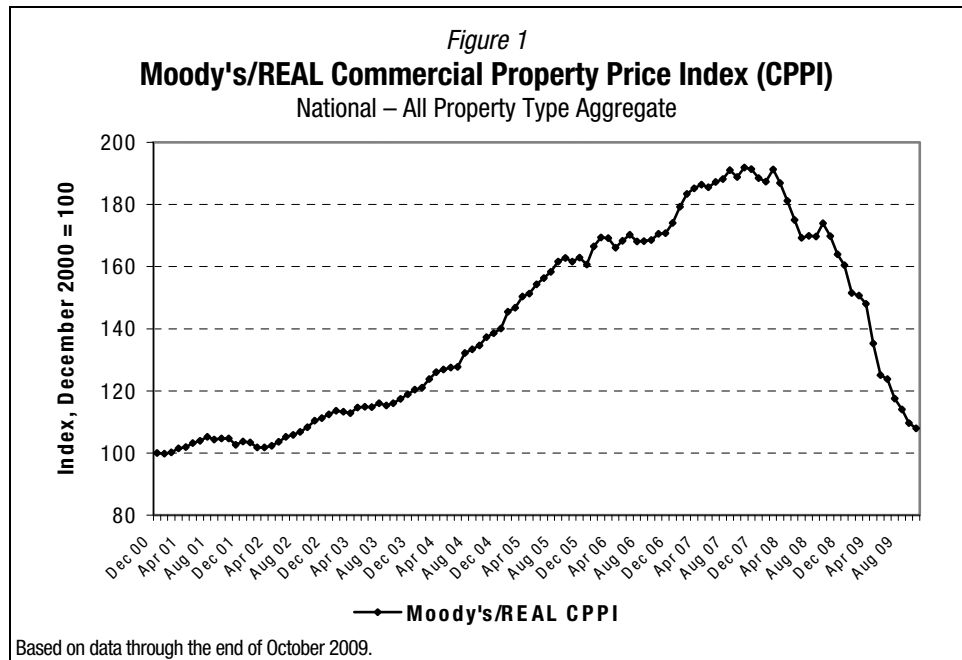
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**OVERVIEW**

The Moody's/REAL Commercial Property Price Index (CPPI) measured a 1.5% decline in prices in October. The National All Property Type Aggregate Index now stands 36.4% below the level seen one year ago. The peak in prices was reached two years ago, in October 2007, and prices have since fallen 43.7%.



*Figure 2*  
**Current Moody's/REAL CPPI and Change from Earlier Periods**

<b>New This Period: National All Property Type Aggregate</b>				
Repeated This Period:	National – Four Property Types Top 10 MSAs – Four Property Types West – Four Property Types			
<b>New This Period: East – Four Property Types South – Four Property Types Southern California – Four Property Types MSA Office Markets – New York, San Francisco, and Washington DC MSA Apartment Market – Florida</b>				
	<b>Current Index<sup>M</sup></b>	<b>1 Month Earlier</b>	<b>1 Year Earlier</b>	<b>2 Years Earlier</b>
National All Property Type Aggregate	107.98	-1.5%	-36.4%	-43.7%
	<b>Current Index<sup>Q</sup></b>	<b>1 Quarter Earlier</b>	<b>1 Year Earlier</b>	<b>2 Years Earlier</b>
National - Apartments	117.61	-10.9%	-34.1%	-38.9%
National – Industrial	120.60	-8.1	-29.6	-36.8
National – Office	113.24	-12.2	-30.1	-35.9
National – Retail	141.81	2.5	-19.4	-27.4
Top Ten MSAs <sup>1</sup> - Apartments	145.72	-3.8	-31.4	-34.6
Top Ten MSAs- Industrial	139.19	-10.4	-26.4	-29.7
Top Ten MSAs- Office	106.15	-19.3	-37.6	-37.9
Top Ten MSAs- Retail	151.11	-3.0	-19.6	-23.1
West – Apartments	146.56	-4.7	-18.9	-23.4
West – Industrial	132.44	-5.7	-24.1	-26.6
West – Office	125.78	11.3	-19.0	-27.5
West – Retail	150.86	-6.0	-19.0	-24.0
	<b>Current Index<sup>A</sup></b>	<b>1 Year Earlier</b>	<b>2 Years Earlier</b>	
East – Apartments	170.84	-13.2%	-22.1%	
East – Industrial	140.66	-22.0	-24.3	
East – Office	114.94	-37.3	-40.6	
East – Retail	134.43	-31.9	-36.2	
South – Apartments	77.38	-51.8	-53.3	
South – Industrial	104.65	-39.7	-46.3	
South – Office	114.36	-34.7	-36.7	
South – Retail	157.82	-8.0	-14.7	
So. California – Apartments	175.13	-15.9	-22.6	
So. California – Industrial	157.00	-24.2	-28.9	
So. California – Office	140.12	-27.8	-32.6	
So. California – Retail	169.28	-22.9	-25.4	
New York – Office	141.17	-38.1	-39.3	
San Francisco – Office	102.88	-21.3	-25.1	
Washington DC – Office	139.07	-27.0	-28.4	
Florida – Apartments	110.08	-46.1	-50.1	

M Monthly series. Most recent data is through October 31, 2009.

Q Quarterly series. Most recent data is through the end of the 3rd quarter 2009. Analysis is based on data from that 3rd quarter.

1 Top Ten MSAs refers to the ten MSAs with the most transactions by dollar volume, in each property type.

A Annual series. Most recent data is through the end of the 3rd quarter 2009. Analysis is based on data from four quarters (4Q08, 1Q09, 2Q09 and 3Q09). Given that the measure is of a rolling four-quarter period, data as of the end of the 3rd quarter cannot be compared with that from the end of the previous quarter.

The Moody's/REAL Commercial Property Price Indices (CPPI) measure the change in actual transaction prices for commercial real estate assets based on the repeat sales of the same assets at different points in time.<sup>1</sup>

### **Notable Observations and Themes**

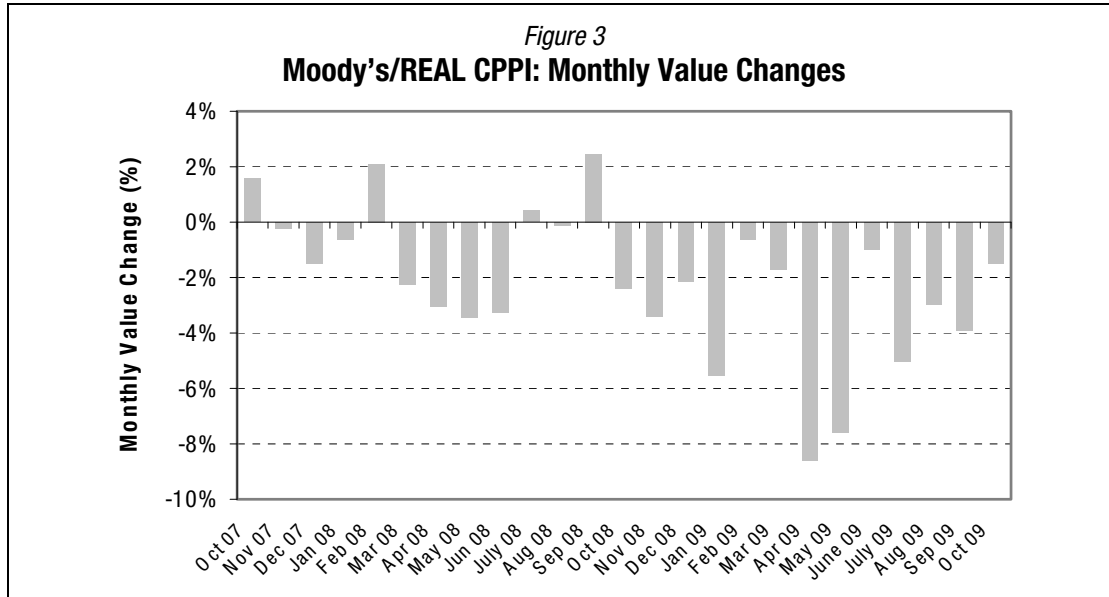
- The National — All Property Type Aggregate Index recorded a 1.5% price decline in the month of October. The index now stands 43.7% below the peak measured two years ago, in October 2007.
- October measured an uptick in transaction volume compared to previous months. 97 repeat-sales totaling \$1.4 billion were used in calculating the monthly index.
- The eastern office market was dragged down by the poor performance in New York over the past year. Office prices in the East fell 37.3% annually and 40.6% from the peak.
- The South had the worst performance of any region, with three of the four property types measuring annual declines greater than 30%. Apartments in the South saw the largest drop of any sub-index, with prices cut in half over the past year.
- Southern California properties saw relatively mild price declines with no property type measuring an annual decline above 30%.
- New York offices saw the largest annual price declines of the three MSA-level office indices. Office prices in New York fell 38.1% over the past four quarters, and have dropped 39.3% overall.
- Prices on Florida apartments have been falling for the past three years and this year, prices plummeted 46.1%. Florida apartment values are now 51.6% below their peak.

<sup>1</sup> A summary or short version of the repeat sales methodology is available in a Moody's Special Report. [US CMBS: Moody's Publishes the First Commercial Property Price Indices Based on Commercial Real Estate Repeat Sales Data](#). Sept. 19, 2007. This is available on Moodys.com > Structured Finance > Commercial MBS > CRE Indices. A very detailed and complete explanation of the methodology is available in a White Paper from MIT. David Geltner and Henry Pollakowski. *A Set of Indexes for Trading Commercial Real Estate Based on the Real Capital Analytics Transaction Prices Database*. MIT Center for Real Estate. Sept. 26, 2007.

## NATIONAL – ALL PROPERTY TYPE AGGREGATE INDEX: PACE OF PRICE DECLINE HAS SLOWED IN RECENT MONTHS

The National – All Property Type Aggregate Index is a monthly series, and this report is based on data through October 31, 2009. Refer back to *Figure 1*.

The National All Property Type Aggregate Index saw prices fall 1.5% in October as compared to September. Value declines have averaged nearly 4% per month in 2009, spiking in April and May with price declines of 8.6% and 7.6%, respectively. This month's relatively mild decline represents the third smallest drop in prices this year. The pace of declines has tapered off since the large drops measured in April and May, however further declines are anticipated.



October's decline puts values 43.7% below the peak reached two years ago in October 2007. It is now necessary to look to properties purchased in 2002 to find positive price appreciation.

*Figure 4*

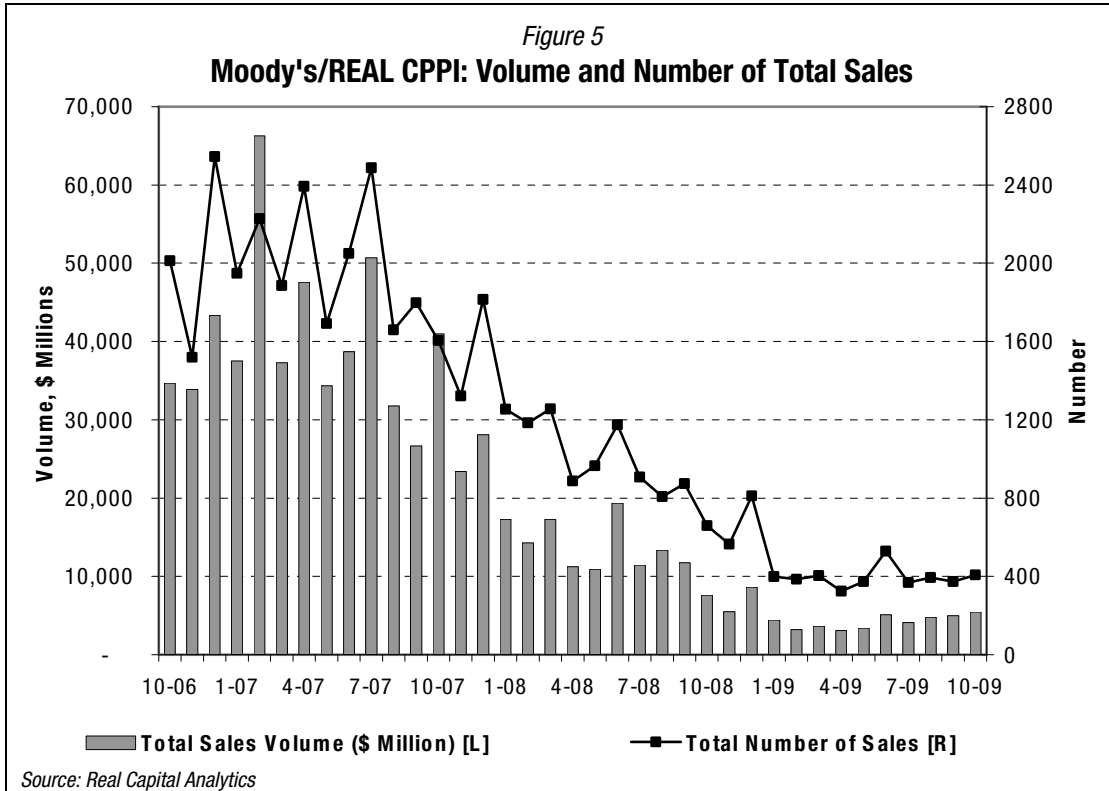
	Moody's/REAL Index Average for the Year	Change to October 2009 Index	LTV at Origination	Current LTV
2002	106.09	1.8%	75%	74%
2003	115.66	-6.6%	75%	80%
2004	130.77	-17.4%	75%	91%
2005	156.02	-30.8%	75%	108%
2006	169.17	-36.2%	75%	118%
2007	187.26	-42.3%	75%	130%
2008	174.90	-38.3%	75%	121%

*Figure 4* shows current loan-to-value (LTV) ratios for vintages 2002-2008 assuming a 75% market LTV at origination and the average value change implied by the CPPI. On average, loans originated at a 75% LTV in 2005 or later are now underwater. Most of the loans originated in these vintages are ten-year loans that do not mature for several years, allowing time for the underlying properties to regain lost value and for the refinance environment to improve. However, with LTVs well over 100%, later vintage loans are in a deep hole, and the continued erosion of property fundamentals puts these loans at increasing risk of term default.

In addition, some of the later vintage loans are five-year maturities coming due now and in the near future. In particular, five-year loans that were originated in 2005 with a 75% LTV are currently underwater, with an average LTV of 108%. We expect that many of these loans will default at maturity and will be extended to give markets time to heal.

**Overall Transaction Volume**

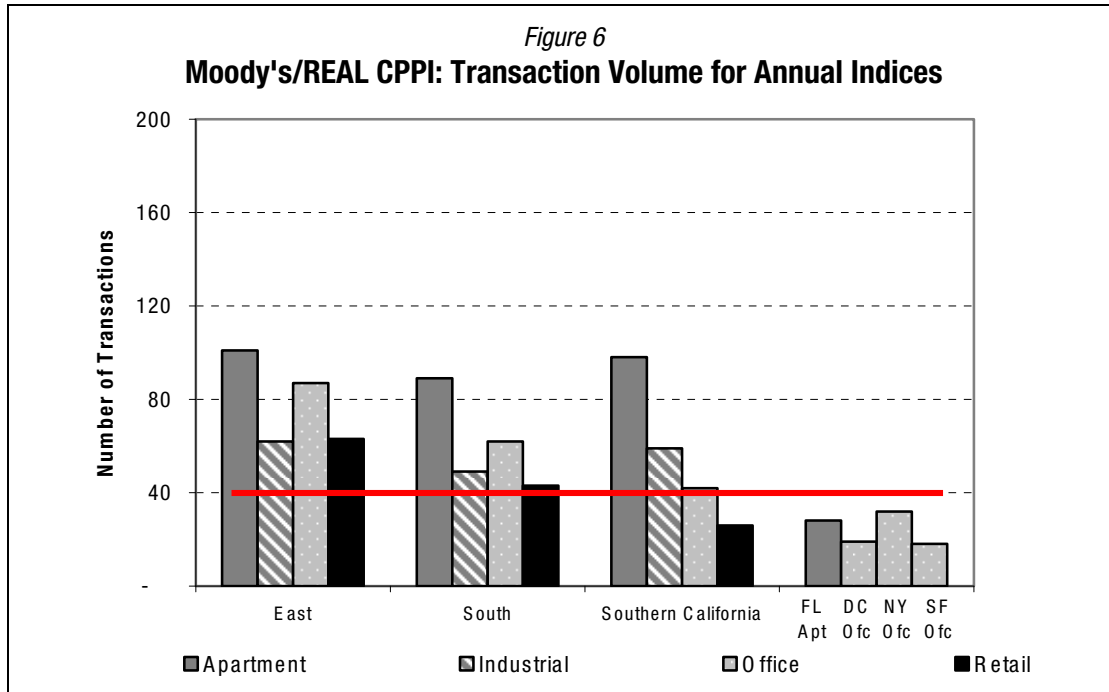
Overall market transaction volume continues to hold steady. The uptick in volume seen in October was a slight increase over levels seen in the past few months. October marked the second highest month of 2009 in terms of number of sales, 407, and saw the largest monthly dollar volume of 2009, at \$5.4 billion.



Repeat-sales volume increased in October as well. Of the 407 overall sales, 97 were repeat-sales transactions, totaling \$1.4 billion. Both by count and dollar volume, repeat-sales volume was higher in October than in any other month in 2009.

## Annual Transaction Volume

Although the monthly transaction volumes saw improvements in October, repeat-sales volumes for the past four quarters deteriorated significantly as compared to the previous four quarters. As a result, several sub-indices have fallen under the threshold necessary to calculate an annual index (see *Figure 6*).



The latest results for the annual indices reported this month cover the four quarters: Q4 2008, Q1 2009, Q2 2009 and Q3 2009, and in that time, Southern California Retail, Florida Apartments, and the three office markets (New York, San Francisco and Washington DC) each saw less than 40 repeat-sales transactions.

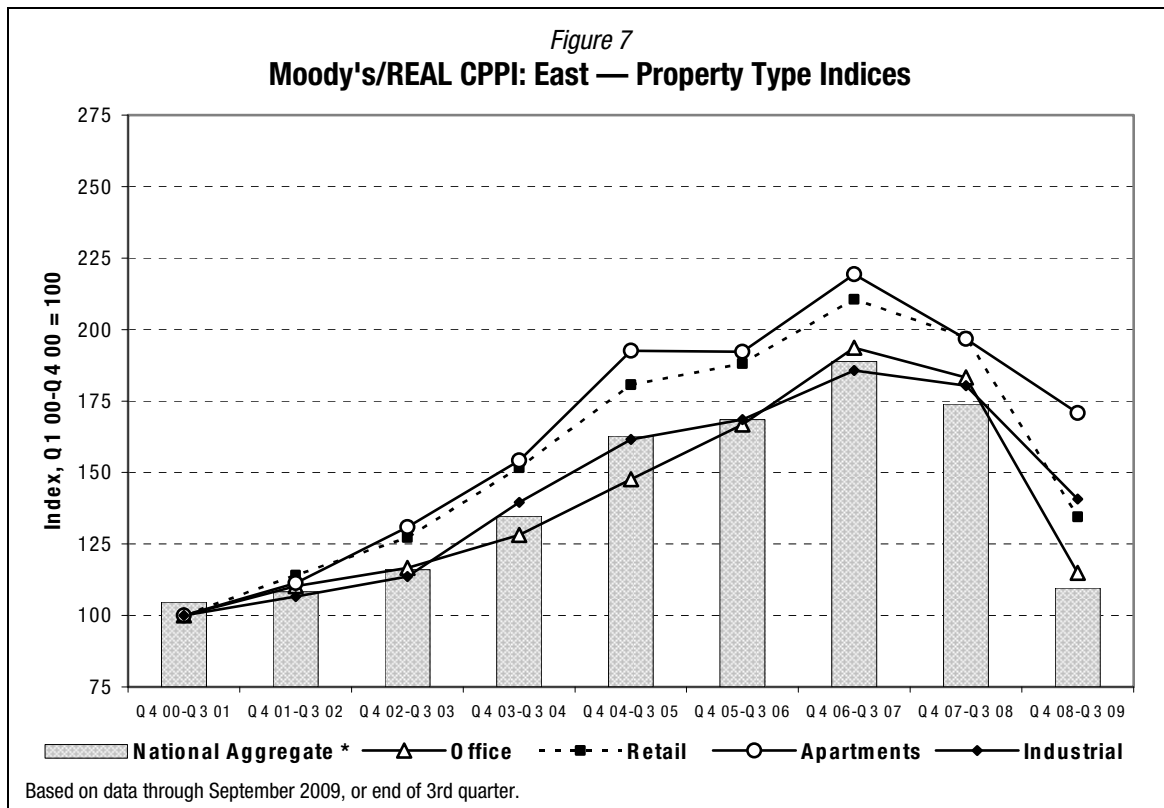
The procedure put in place by Moody's/REAL was discussed in the May report and is outlined in more detail in the MIT white paper.<sup>2</sup> The index returns that result from this calculation become the official returns and will be frozen in the history going forward.

<sup>2</sup> Please see the MIT Methodology White Paper, Section 6.2, for further details. David Geltner and Henry Pollakowski. *A Set of Indexes for Trading Commercial Real Estate Based on the Real Capital Analytics Transaction Prices Database*. MIT Center for Real Estate. Sept. 26, 2007.

## EASTERN REGION—PROPERTY TYPE INDICES: OFFICE MEASURES LARGEST DECLINE IN THE REGION

The Eastern Region—Property Type Indices for the four major property types is an annual series, based on one year of data on a rolling basis and updated each quarter. This index is based on data for the four quarters: Q4 2008, Q1 2009, Q2 2009 and Q3 2009, thus culminating with data through the end of the third quarter of 2009.

All four property types in the East measured significant value declines over the past four quarters. Apartments fared the best, measuring the mildest annual drop, 13.2%, and has had a peak-to-trough decline of 22.1%, also the lowest of the four property types in the region. Eastern apartments continue to hold up better than the nation, which has seen overall price declines of nearly 40%.



Values on eastern industrial properties saw a 22.0% decline over the past year; coupled with a relatively mild decline of just 2.9% the year before, industrial prices are now 24.3% below the peak. The East outperformed the nation in this sector as well, which had an annual decline of 29.6%, and a decline of 36.8% over two years.

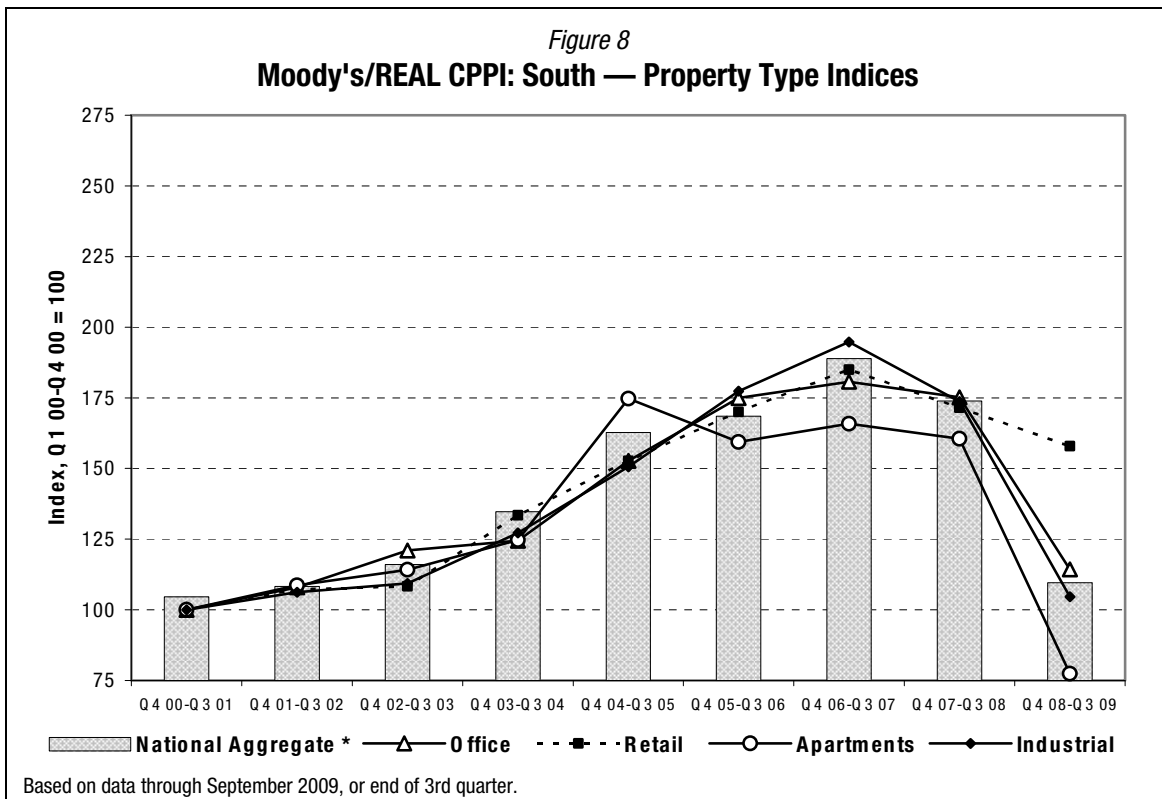
The retail sector in the East is the worst performer of all the retail sub-indices. Nationally, retail prices fell 19.4% over the past year. In the East, values on retail properties declined 31.9% over the same time period. Peak-to-trough eastern retail values are down 36.2%.

The eastern office sector was the worst performer of the region. This is unsurprising, as this sector includes the New York office market, which saw a 38.1% price decline in the past year (discussed below). New York makes up more than one-third of the eastern office market. Over the past four quarters, eastern office prices fell 37.3%.

## SOUTHERN REGION—PROPERTY TYPE INDICES: WORST PERFORMING REGION OVERALL

The Southern Region—Property Type Indices for the four major property types is an annual series, based on one year of data on a rolling basis and updated each quarter. This index is based on data for the four quarters: Q4 2008, Q1 2009, Q2 2009 and Q3 2009, thus culminating with data through the end of the third quarter of 2009.

The South is by far the worst performing region in the nation over the past year, with three of the four property types measuring declines of more than 34%. The small bit of good news in the South is retail, which had an 8.0% annual value decline. This greatly outperformed the nation, which saw a 19.4% value drop over the same time period. The price decline in southern retail represents the mildest annual decline in this month's report, leaving southern retail as the only index with an annual value drop of less than 10%. Peak-to-trough southern retail prices have fallen 14.7%.



Office buildings in the South saw prices fall 34.7% over the past year. National office prices fell 30.1% over the same time period. Southern office prices peaked two years ago, and peak-to-trough declines measure 36.7% in this sector.

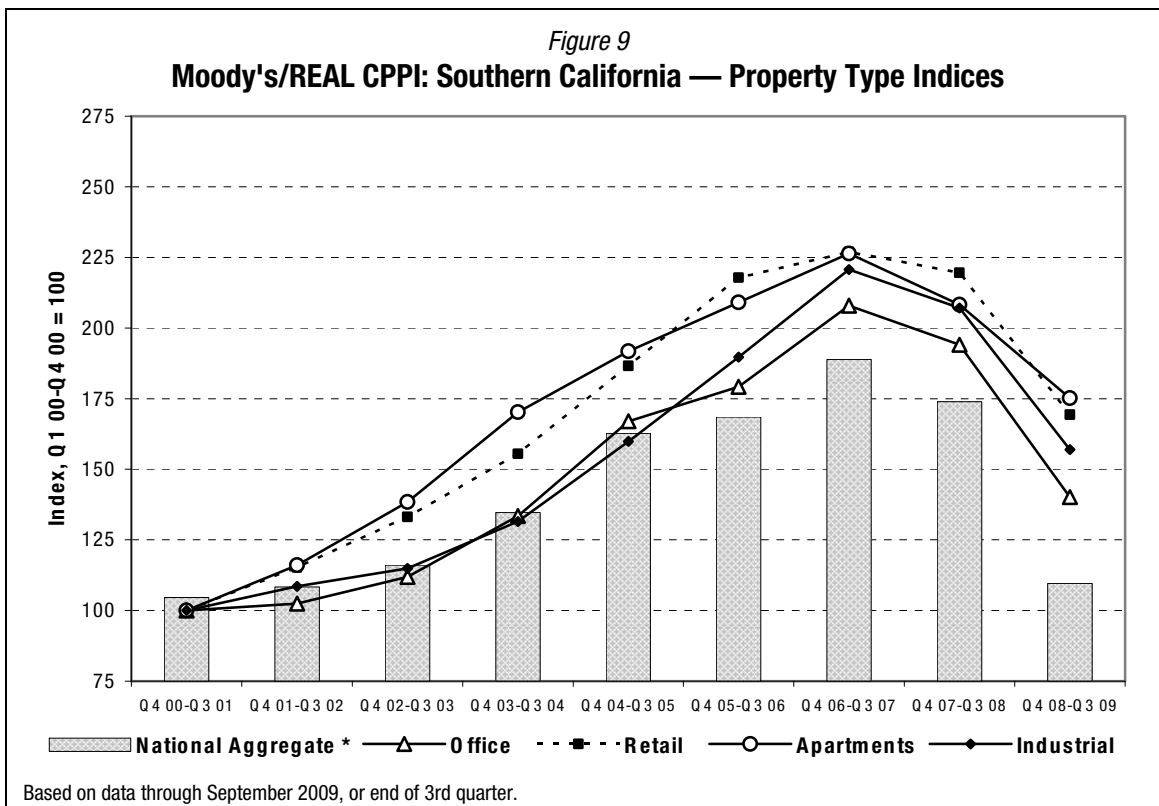
Both industrial and apartments in the South greatly underperformed the nation. Industrial prices in the South fell 39.7% over the past four quarters, as compared to 29.6% in the nation. Prices peaked for southern industrial properties two years ago, and have since fallen 46.3%. In the nation, industrial prices are 36.8% lower than they were two years ago.

The worst performer in the South is the apartment sector. In fact, the South apartment sector is the worst performing sub-index. The southern apartment market includes Florida apartments, which saw values plummet 46.1% over the past four quarters. Florida apartments however, enjoyed a significant run-up in prices in 2004-2005 that the southern apartment market as a whole did not experience. As a result, the Florida apartment index now stands at 110.08, roughly the level seen in 2001-2002, while the broader southern apartment index, after falling 51.8% in the past year, is currently 77.38, significantly less than the benchmark level of 100.00 at which the index began in 2000-2001. The southern apartment index peaked at 174.74 at the end of the third quarter 2005, and has fallen 55.7% in the four years since.

## SOUTHERN CALIFORNIA—PROPERTY TYPE INDICES: ONLY OFFICE SEES OVERALL DECLINES GREATER THAN 30%

The Southern California—Property Type Indices for the four major property types is an annual series, based on one year of data on a rolling basis and updated each quarter. This index is based on data for the four quarters: Q4 2008, Q1 2009, Q2 2009 and Q3 2009, thus culminating with data through the end of the third quarter of 2009.

The Southern California indices saw relatively mild price declines, with no index exceeding a 30% drop in prices annually. Values on apartments in Southern California fell 15.9% over the past four quarters, and 22.6% from the peak.



The remaining three property types in Southern California saw value declines ranging from 22% to 28% over the past year. Retail was the only property type that underperformed the nation. Retail prices in Southern California fell 22.9% over the past four quarters, compared to 19.4% in the nation overall. Peak-to-trough Southern California retail prices have fallen 25.4%.

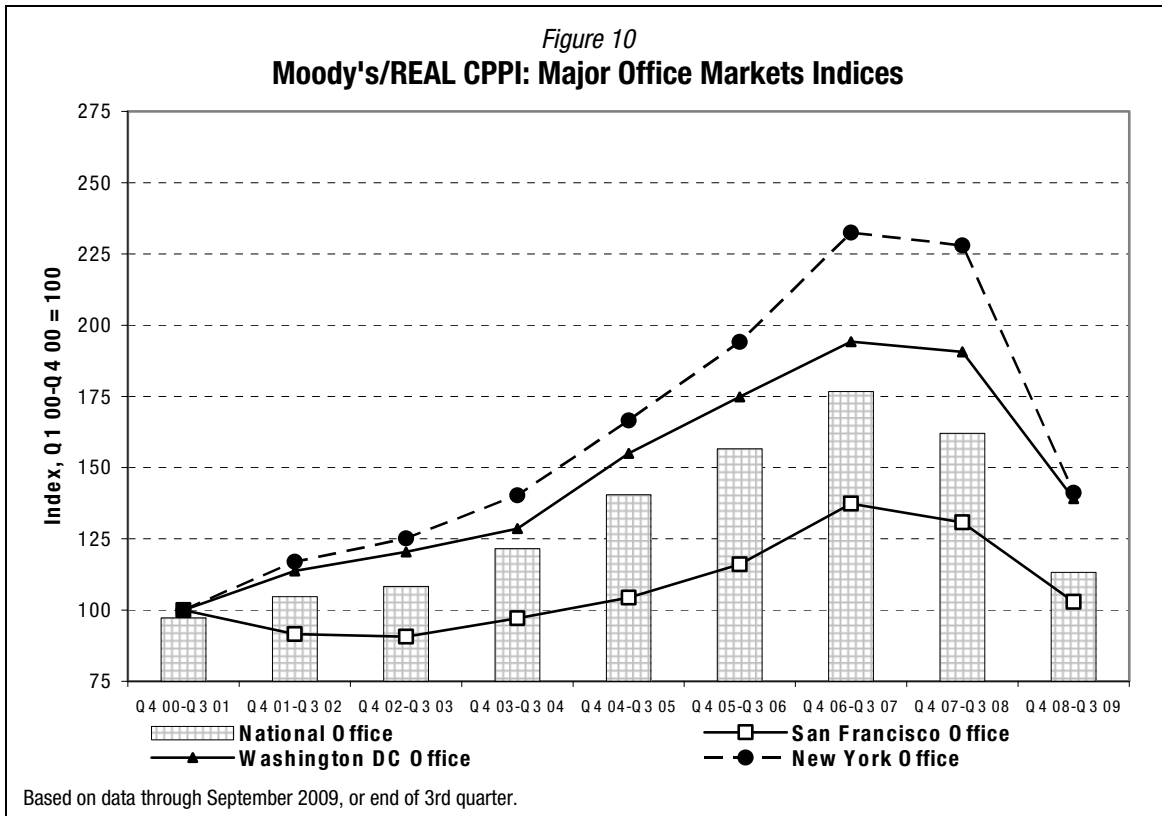
Industrial properties in this region measured an annual value drop of 24.2%. Performance in this sector was better than the nation overall, which saw a 29.6% drop over the same time period. Prices on Southern California industrial properties peaked two years ago, and have since fallen 28.9%.

The worst performing property type in Southern California was office, in terms of both annual and peak-to-trough declines. Office prices in Southern California fell 27.8% over the past year, and 32.6% overall. Office is the only property type in the region with an overall decline greater than 30%. Although the office sector is the poorest performer in the region, it outperformed national office prices, which had an annual decline of 30.1%.

## MAJOR OFFICE MARKET INDICES: ACCELERATING PRICE DECLINES

Three major office markets typically experience enough transactions to support at least an annual series for each of those cities: New York, San Francisco, and Washington DC. This index is based on data for the quarters: Q4 2008, Q1 2009, Q2 2009 and Q3 2009, thus culminating with data through the end of the third quarter of 2009.

All three office markets saw an acceleration of the decline of office prices in the past year. Last year at this time, the markets had declined by less than 5% from their respective peaks in the third quarter 2007, whereas this year the declines range from 21% to 38%.



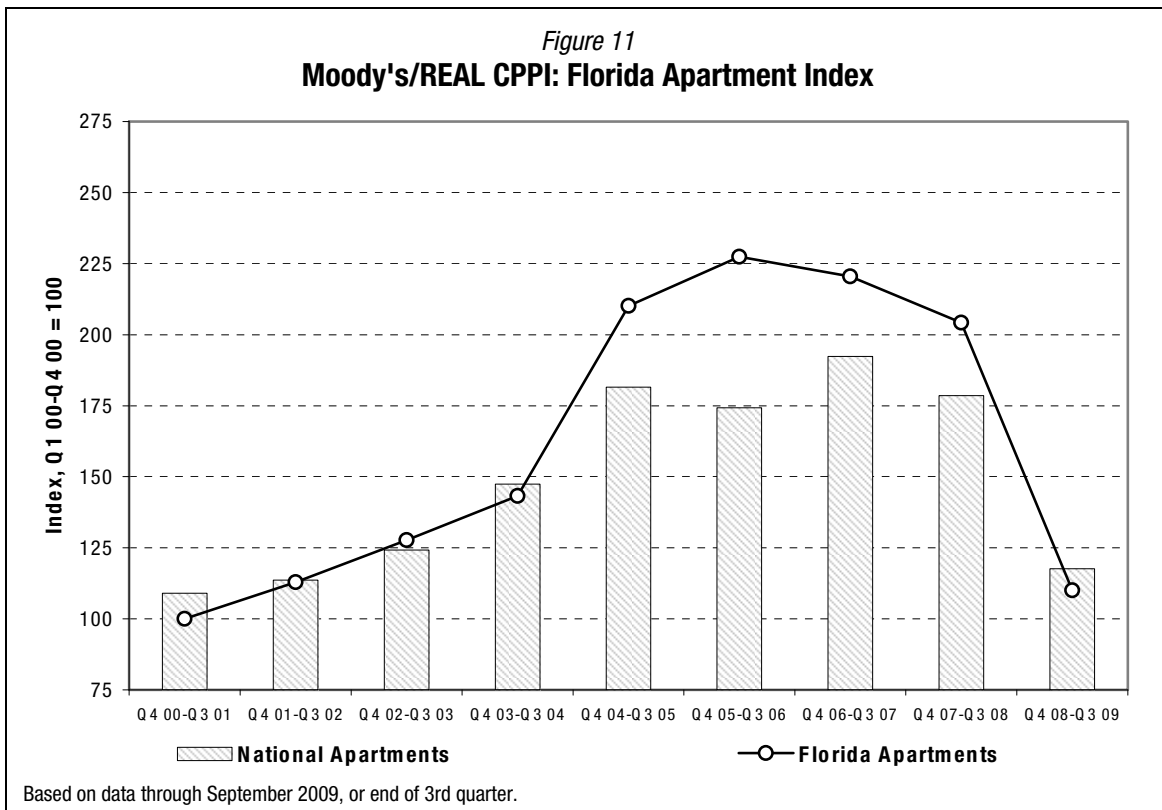
The New York office market had the largest value decline of the three office property indices, dropping 38.1% over the past year. This decline in the New York office MSA is slightly worse than the 37.3% decline in value for the office market in the eastern region as a whole over the same time period. New York office values are 0.7% above the values seen five years ago.

Washington DC, the other large market within the eastern region, performed better than the eastern office market overall. The Washington DC office market declined 27.0% in the past year and office property values are 8.2% higher than five years ago.

San Francisco had the mildest decline of the three office markets, with a 21.3% drop in the past year. Even though the decline is the mildest of the three markets in the past year, San Francisco office properties are nearly at their 2001 values, when the index began. This is due in part to the value decline in San Francisco in 2002 and 2003 that resulted from the bursting of the technology and internet bubble.

## FLORIDA—APARTMENT INDEX: VALUES DROP BY NEARLY HALF

An aggregation of several Florida MSAs generally provides sufficient volume of apartment transactions to support an annual Florida—Apartment series for Orlando, Tampa, and the three metropolitan divisions of the Miami MSA—Fort Lauderdale, Miami and West Palm Beach. Like the other annual series using data from a rolling four quarters, this series culminates with data through the end of the third quarter of 2009.



The Florida apartment market lost nearly half its value in the past year, declining 46.1%. Prices are down 51.6% from the peak which was seen in the third quarter of 2006. Values on Florida apartments have dropped below that of 2002, but still remain higher than the beginning of the index in 2001.

The attached Appendix includes the following:

- A calendar summarizing the report cycle, i.e., which indices are updated in which month. The calendar also indicates the precise release dates for Moody's/REAL Indices in 2009 and 2010 (*Figures 12, 13, and 14*).
- A listing of the cities included in the Top Ten Indices (*Figure 15*).
- Charts for the 12 sub-indices that were not recalculated for this report. These are repeated from the previous report so that both data and charts for all indices, whatever the most recent calculation, are included here in one document for readers' convenience (*Figures 16 – 18*).

**APPENDIX**

*Figure 12*  
**CPPI: Report Release Cycle, 2009 & 2010**

	<b>OCTOBER</b>	<b>NOVEMBER</b>	<b>DECEMBER</b>
	Oct. 19, 2009	Nov. 19, 2009	Dec. 21, 2009
Report to be released:	Aggregate	Aggregate	Aggregate
For period:	August	September	October
Based on data through:	August 31	September 30	October 31
Report to be released:		12 Quarterly Indices (A)	16 Annual Indices (B)
For period:		3 <sup>rd</sup> Quarter	3 <sup>rd</sup> Quarter
Based on data through:		September 30	September 30
	<b>JANUARY</b>	<b>FEBRUARY</b>	<b>MARCH</b>
	Jan. 20, 2010	Feb. 22, 2010	March 22, 2010
Report to be released:	Aggregate	Aggregate	Aggregate
For period:	November	December	January
Based on data through:	November 30	December 31	January 31
Report to be released:		12 Quarterly Indices (A)	16 Annual Indices (B)
For period:		4 <sup>th</sup> Quarter	4 <sup>th</sup> Quarter
Based on data through:		December 31	December 31
	<b>APRIL</b>	<b>MAY</b>	<b>JUNE</b>
	April 19, 2010	May 19, 2010	June 21, 2010
Report to be released:	Aggregate	Aggregate	Aggregate
For period:	February	March	April
Based on data through:	February 28	March 31	April 30
Report to be released:		12 Quarterly Indices (A)	16 Annual Indices (B)
For period:		1 <sup>st</sup> Quarter	1 <sup>st</sup> Quarter
Based on data through:		March 31	March 31
	<b>JULY</b>	<b>AUGUST</b>	<b>SEPTEMBER</b>
	July 19, 2010	August 19, 2010	September 20, 2010
Report to be released:	Aggregate	Aggregate	Aggregate
For period:	May	June	July
Based on data through:	May 31	June 30	July 31
Report to be released:		12 Quarterly Indices (A)	16 Annual Indices (B)
For period:		2 <sup>nd</sup> Quarter	2 <sup>nd</sup> Quarter
Based on data through:		June 30	June 30

Figure 13

**(A) 12 Quarterly Indices include the following:**

<b>APARTMENT</b>	<b>RETAIL</b>	<b>OFFICE</b>	<b>INDUSTRIAL</b>
National Apartment	National Retail	National Office	National Industrial
Top 10 MSAs Apartment	Top 10 MSAs Retail	Top 10 MSAs Office	Top 10 MSAs Industrial
West Apartment	West Retail	West Office	West Industrial

Figure 14

**(B) 16 Annual Indices with Quarterly Releases include the following:**

<b>APARTMENT</b>	<b>RETAIL</b>	<b>OFFICE</b>	<b>INDUSTRIAL</b>
East Apartment	East Retail	East Office	East Industrial
South Apartment	South Retail	South Office	South Industrial
So. California Apartment	So. California Retail	So. California Office	So. California Industrial
Florida Apartment		New York Office	
		San Francisco Office	
		Washington DC Office	

Figure 15

**Top Ten Cities by Property Type**

<b>APARTMENT</b>	<b>RETAIL</b>	<b>OFFICE</b>	<b>INDUSTRIAL</b>
<b>Atlanta</b>	<b>Atlanta</b>	<b>Atlanta</b>	<b>Atlanta</b>
<b>Dallas</b>	Chicago	Boston	Chicago
Houston	<b>Dallas</b>	Chicago	<b>Dallas</b>
<b>Los Angeles</b>	Houston	<b>Dallas</b>	<b>Los Angeles</b>
<b>New York</b>	<b>Los Angeles</b>	Houston	<b>New York</b>
Phoenix	<b>New York</b>	<b>Los Angeles</b>	San Diego
<b>San Francisco</b>	Phoenix	<b>New York</b>	<b>San Francisco</b>
Seattle	<b>San Francisco</b>	<b>San Francisco</b>	Seattle
South Florida	South Florida	Seattle	South Florida
<b>Washington DC</b>	<b>Washington DC</b>	<b>Washington DC</b>	<b>Washington DC</b>

Figure 16  
**Moody's/REAL CPPI: National — Property Type Indices**

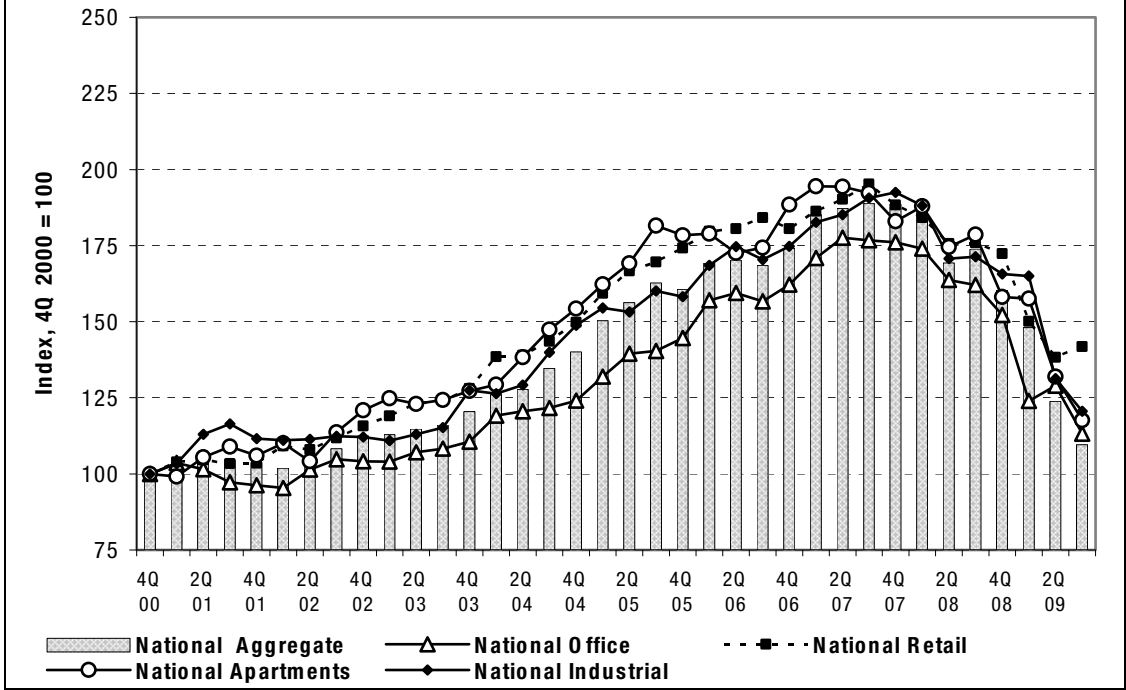


Figure 17  
**Moody's/REAL CPPI: Top Ten MSAs—Property Type Indices**

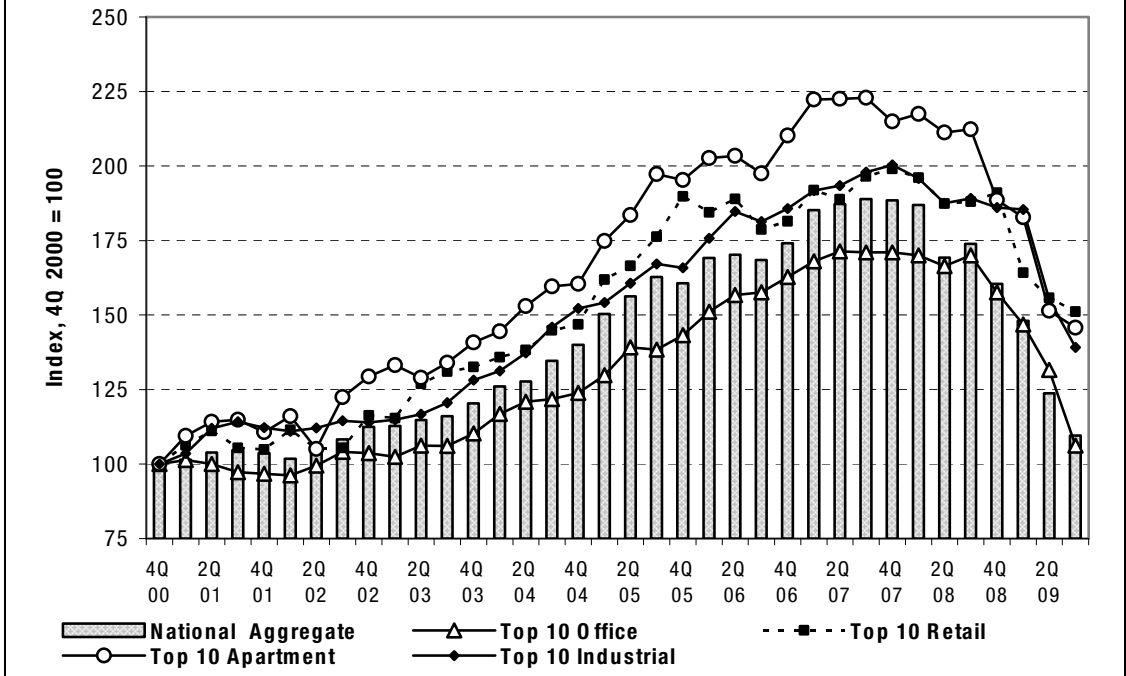
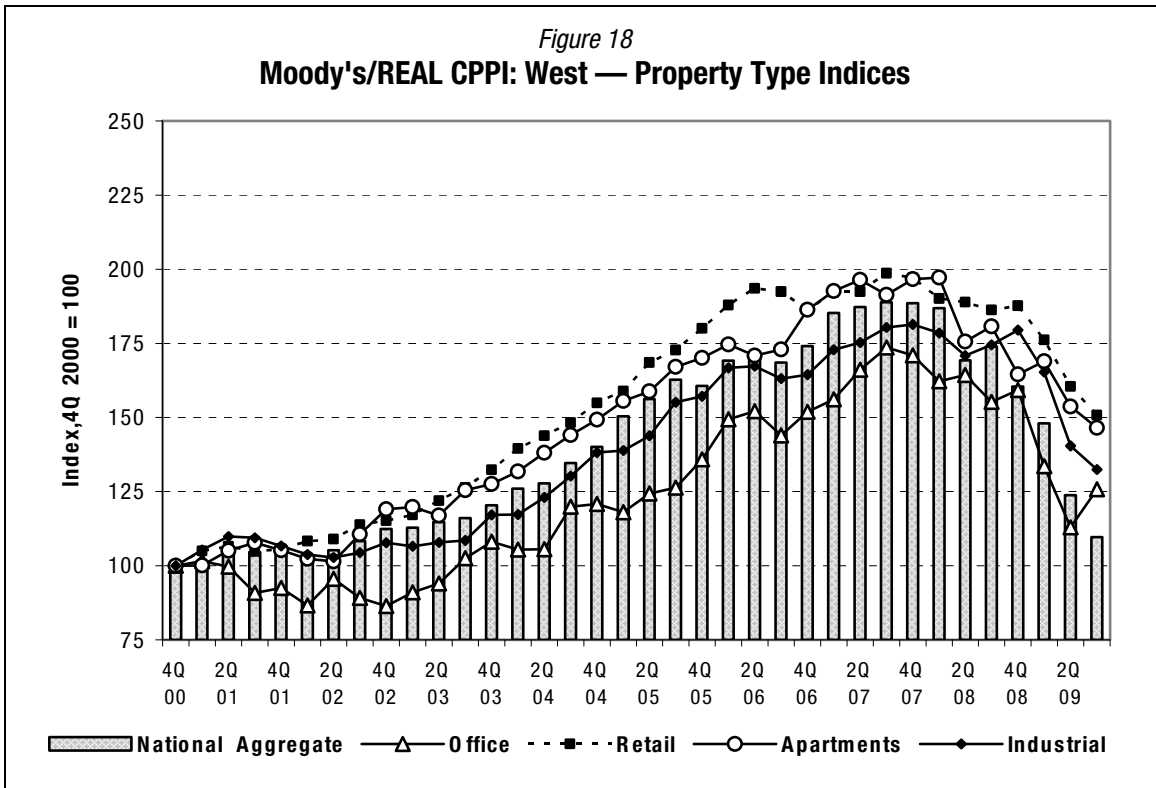


Figure 18  
**Moody's/REAL CPPI: West — Property Type Indices**



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