Commercial Office Markets Viewed by Price Segments over the Past 5 Years*

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Overview: By using the variance of price range segments we are able to see price dispersion leading turning points in the market. We also observe the top and bottom price ranges as the most affected by capital market trends and distress sales.

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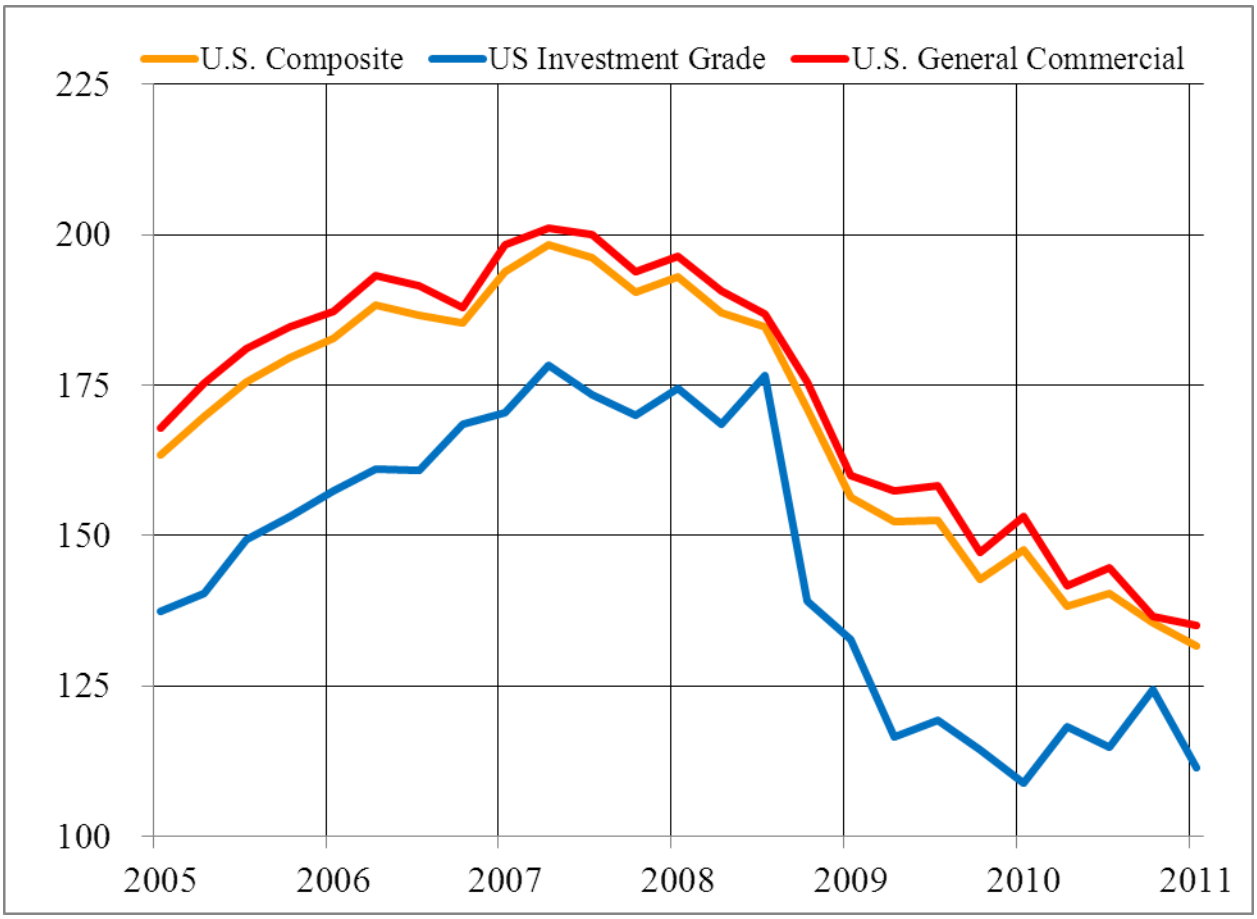
The state of the office property markets has seen significant price movement in the last five years and recent activity has focused on the trophy and troubled ends of the spectrum. Here we suggest that price dispersion may provide a signal of market turning points well before the actual turn. From a period of first quarter of 2005 till third quarter of 2010, the value of investment grade office properties dropped approximately 37% from peak to trough using the Moody's Real Capital Analytics CPPI, or the CoStar CCRSI or the MIT based TBI. The peak in office values was reached in the second quarter of 2007, with the average price at $191/sq.ft nationwide across the whole quarter for all classes, not just investment grade (Source: Costar). The lowest value observed to date was in second quarter of 2010, with the average price for that quarter at $120/sq.ft. We don't know for certain if we have hit the bottom yet, will face a double dip similar to housing straining to absorb all the distress sales or are simply bouncing along a rocky bottom. But we can say that the market is now facing a little more price consensus based on the dispersion observed. The dispersion in property prices can be interpreted as an indicator of market confidence in values. More uncertainty in the top and bottom range of values and higher than average bid-ask spreads are observable when we divvy up the market into segments.

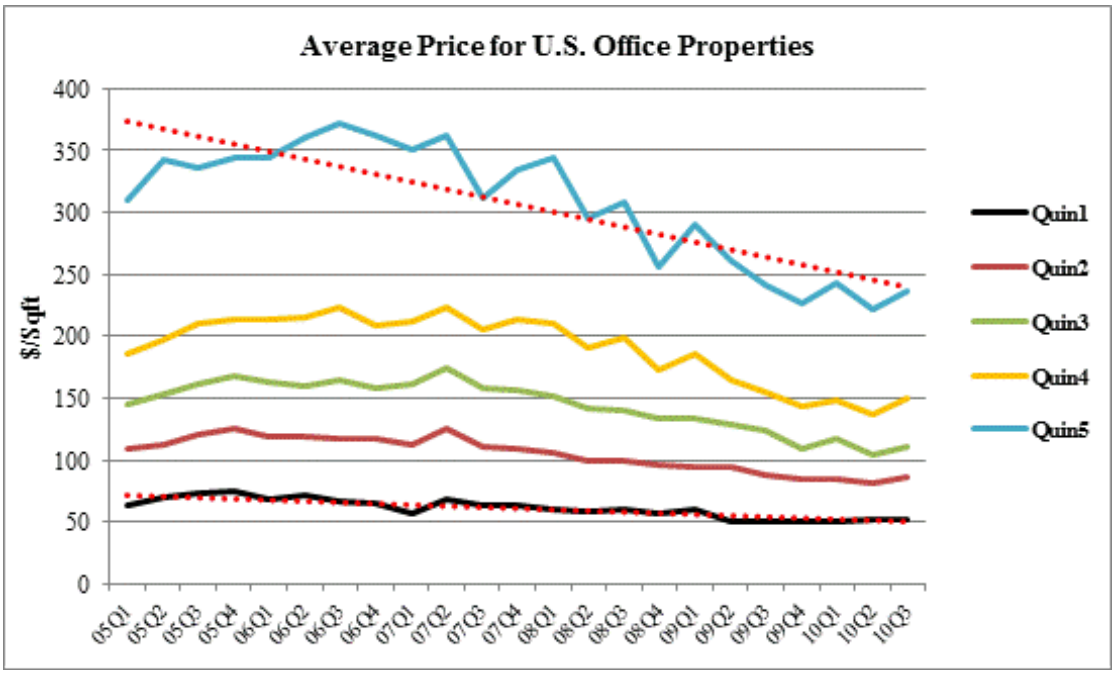
In Exhibit 1, we show the CoStar Commercial Repeat Sales Index for 2005 through first Quarter 2011. Investment grade properties represent approximately the top 12% of sales transactions by count, yet more than two thirds of the dollar value of all deals. We note the greater volatility in this upper end of the market and it could also imply that the upper end reacts faster to changing market conditions as we saw in 2008. The indices shown include the general category, which are below investment grade as well as the transaction weighted composite. This measure is much broader than the investment grade. We break down these price segments further and show certain trend measures in Exhibits 2-4 and then add one on distress discounts in Exhibit 5. The purpose is to see how the dispersion in price changed over this dynamic period.

Exhibit 1: CoStar Commercial Repeat Sales Index Since 2005



In the subsequent analysis, office prices are divided in quintiles. We see that price sensitivity varies for the different quintiles. For a period consisting of 23 quarters from 2005Q1 to 2010Q3, our analysis of nationwide transacted office prices reveal some interesting results. Exhibit 2 shows the trend in the average price for U.S. office properties from the first quarter of 2005 till third quarter of 2010. Please note that the average price is standardized to control for the size of the property. Also extreme values are omitted to avoid any data bias.

Exhibit 2: Average Price by Quintiles



Data: CoStar

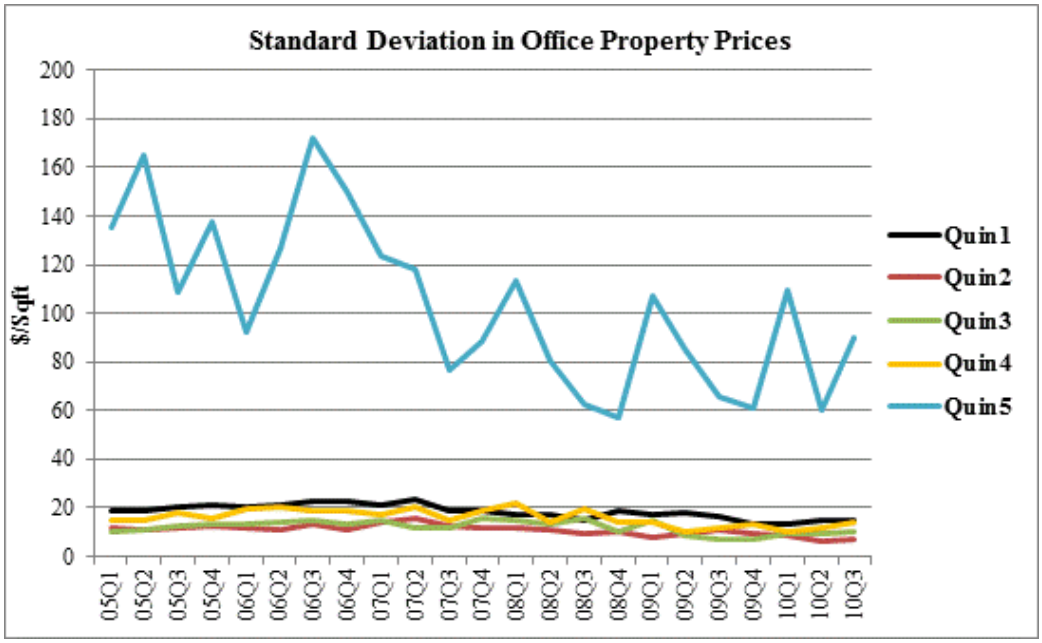
We can see that as we go down the quintiles (from the highest priced Quintile 5, to the lowest Quintile 1); the trends become much flatter. We added a trend line for the top quintile. This suggests that the drop in prices (peak of average price versus peak of average trough) is greatest for the top quintile at approximately 40% as compared to 33% for the bottom quintile (with lowest valued properties), which dropped the least among the five quintiles.

When we look at the standard deviation of the standardized prices in Exhibit 3, the results are similar but in this dollar based graph the top quintile stands out so in Exhibit 4 we use percentage standard deviations. Note the apparent high volatility in quintile 5 as compared to others. In fact, the standard deviation within the top quintile itself varies quite a bit across the 23 quarters. This may suggest a lot of uncertainty in the higher priced properties especially during the turning point in prices. Another thing to be noted for this quintile is that for the boom period from 2005Q1 to 2007Q4 the average standard deviation was $124/sq.ft, and it subsequently dropped to $77/sq.ft for the last 11 quarters, a period where office rents and values were on the decline. That is a drop of 38% from a period of high activity to low activity[1]. For the other quintiles, there is also a drop, but it ranges from 15% to 27%. So what does all this mean? These ratios could indicate the uncertainty behind the prices observed in the

[1] From our analysis, high activity period is from 2005Q1 to 2007Q4, while the low activity period is from 2008Q1 to 2010Q3

market. At the turning point in the market we see significant price dispersion, especially in the top priced quintile.

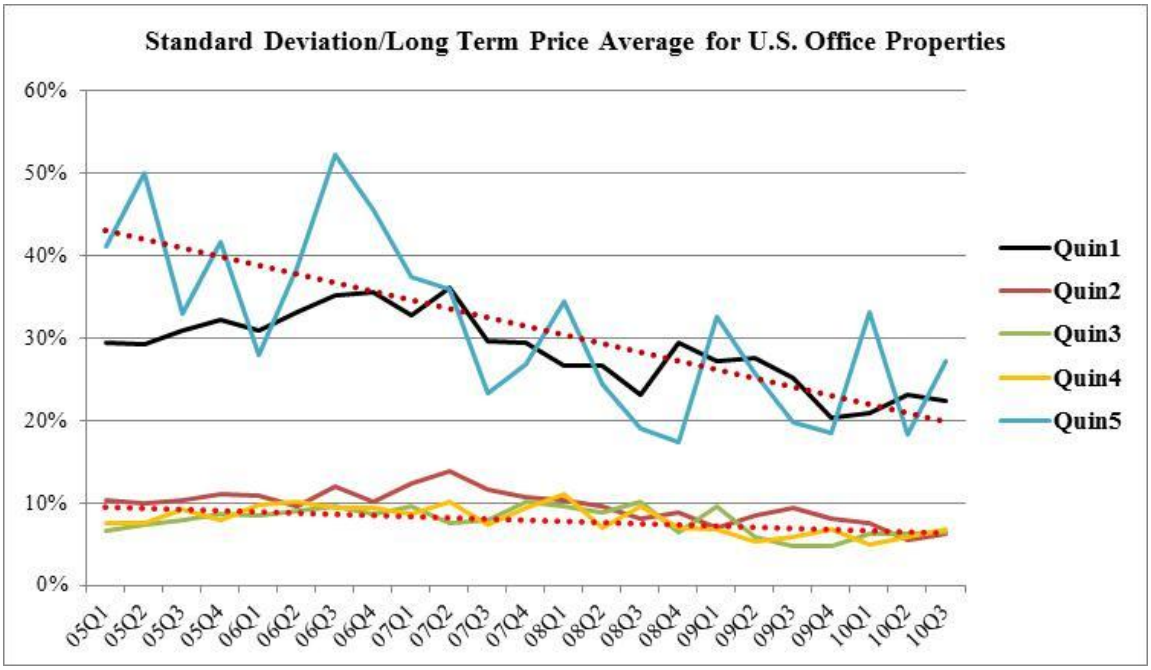
Exhibit 3: Price Dispersion by Quintile in Dollars



Data: CoStar

In Exhibit 4, we show the ratio of the standard deviation to the long term average price, a more standardized measure of the market price dispersion. Not only the top quintile, but in this case the bottom quintile, is seen as having greater price dispersion. The ratio is not only very high in absolute terms for these two quintiles, but it also has a steeper negative slope than the other middle three quintiles. We can see that the ratio averages approximately 38% and 32% for the top and bottom quintiles respectively for the high activity period. For the other quintiles, it ranges from 8.5% to 11%, almost one third of the top and bottom quintiles. For the low activity period, the ratio drops down to approximately 25% for the top and bottom quintile. During this period, in the other three middle quintiles (Quintiles 2, 3 and 4); the ratio is quite stable with the range being from 7% to 8%. This may not be said for the top and bottom quintiles, with the ratio dropping by 22% for the bottom quintile and by 35% for the top quintile. Also, the ratio is very high irrespective of the time period for these two quintiles. This again suggests uncertainty in these two price segments.

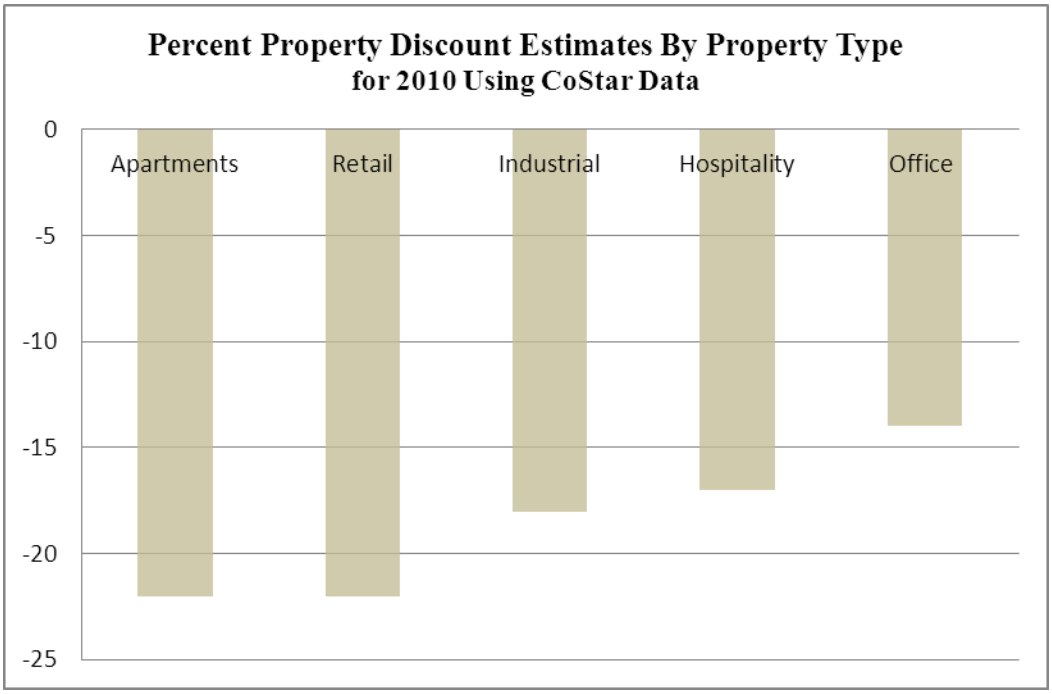
Exhibit 4: Standardized Price Dispersion Shows the Most Volatility at the Top and Bottom



Data: CoStar

When we look at the type of property transaction, there are certainly distressed sales coming into the picture in recent years which will affect the indices and price dispersion. Distress sales include sales of REOs, foreclosure sales, deeds in lieu of foreclosures and short sales. Of the total of 10,081 sales in our sample, there are 220 distress sales. Of the total of all distress sales, 79% of them have occurred in last three years, from 2008 to 2010. An analysis of the discount on distressed properties for 2010 reveals that office properties have the lowest discount amongst all property types. The discount was calculated using a hedonic regression model with factors such as age of property, loan to value, city of transaction (Top 10 MSA vs others), owner user or not and price range of the transaction (low, medium or high) use to explain price of the property. Exhibit 5 shows that discount on distressed office properties are lowest at 14%, while it is highest for apartments and retail properties at 22%. These will influence the repeat sales indices as well as the price dispersion.

Exhibit 5: Impact of Distress Compared to Non-Distressed Sales



Data: CoStar

Conclusion

We see that the top quintile which represents the top 20% of the price range shows a significantly more price volatility and price dispersion compared to the other quintiles. At the same time it is unlikely to be significantly affected by the distressed sales which more likely will be in the lower price quintiles. The other segment with then greater price uncertainty and dispersion is at the lowest end of the price spectrum. In both these extreme quintiles, we see price dispersion increase significantly well before and during turning points in the market.

Notes:

1. The data used in this study is from CoStar and the authors would like to thank them for providing it for this research
2. Data was filtered to take out extreme values to avoid any data bias. Thus, we use of averages rather than median values. Use of either of the measures will not change the results or their interpretation

3. Additional filter on age of the property was used to get rid of properties that are very old. Data consisted of only those office properties that were constructed on or after 1970