First Quarter 2013: Is the Trend Our Friend?

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First Quarter 2013: Is the Trend Our Friend?

Abstract
The Cornell Hotel Indices reveal that the hotel industry is continuing to experience positive price momentum for small hotels with a continued weakening in price for larger hotels. Hotel properties also exhibit a narrowing premium relative to other property types, signaling lower perceived default risk for hotel properties. Our index of business confidence suggests that we should expect to see a reversal in the prices for larger hotels in the near term given a strengthening in the economy. We also expect rising prices for smaller hotels and our repeat sales index going forward based on the NAREIT Lodging/Resort index, the Architecture Billing Index, and the moving average trendline for the Consumer Confidence Index. This is paper number 6 of the index series.

Keywords
Cornell, hotel prices, business confidence, NAREIT lodging/resort index, architecture billing index, HOTVal

Disciplines
Real Estate

Comments
Required Publisher Statement
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Supplemental File:
Hotel Valuation Model (HOTVAL) We provide this user friendly hotel valuation model in an excel spreadsheet entitled HOTVAL Toolkit as a complement to this report which is available for download from http://scholarship.sha.cornell.edu/creftools/1/
EXECUTIVE SUMMARY

The Cornell Hotel Indices reveal that the hotel industry is continuing to experience positive price momentum for small hotels with a continued weakening in price for larger hotels. Hotel properties also exhibit a narrowing premium relative to other property types, signaling lower perceived default risk for hotel properties. Our index of business confidence suggests that we should expect to see a reversal in the prices for larger hotels in the near term given a strengthening in the economy. We also expect rising prices for smaller hotels and our repeat sales index going forward based on the NAREIT Lodging/Resort index, the Architecture Billing Index, and the moving average trendline for the Consumer Confidence Index. This is paper number 6 of the index series.
Hotel market volume continues to rise. Exhibits 1 and 2 show that the number of large and small hotel transactions has continued to rise in the first quarter of 2013 over the fourth quarter of 2012 (using $10 million as the dividing line between the two sets).¹ Large hotel transactions increased 110 percent, with 82 transactions for large hotels in 2013Q1 compared to 39 transactions a year earlier (2012Q1). Similarly, small hotel transactions also increased albeit by a smaller amount (70%), with 158 transactions for small hotels in the first quarter versus 93 transactions in 2012Q1. On a quarter-to-quarter basis however, smaller hotel transactions had a greater increase (14.5%) relative to large hotel transactions (9.3%).

¹ Please note that the number of transactions is limited to the sales that are included in the hedonic index. As such, it should not be construed as being the total market activity.
**Exhibit 1**

Median sale price and number of sales for large hotels (sale prices of $10 million or more)

**Exhibit 2**

Median sale price and number of sales for small hotels (sale prices of less than $10 million)

Sources: CoStar, Real Capital Analytics
### Exhibit 3

**Hotel indices through 2013, quarter 1**

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<td>2004.01</td>
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A slightly different pattern emerges in terms of prices, with both the hedonic index for low price hotels (under $10 million) and the repeat sale hotel index rising year over year. This represents a continuation of the trend from our previous report. The hedonic index for low price hotels increased 11 percent, rising from 120.86 in 2012Q1 to 134.04 in 2013Q1, while the repeat-sale hotel index rose slightly (1.4%), increasing from 113.215 (2012Q1) to 114.79 (2013Q1). Both increases were greater than the year over year changes in the previous report for the 2011Q4 to the 2012Q4 period. The hedonic index for low price hotels rose approximately 1 percent, and the repeat sale hotel index increased about 2 percent, both on a quarter over quarter basis. In contrast, the hedonic index for high price hotels ($10 million or more) declined 10.8 percent year over year (and 0.2 percent quarter over quarter), decreasing from 166.85 in 2012Q1 (149.09 in 2012Q4) to 148.77 in 2013Q1 (see Exhibit 3). Since the decline was 7.4 percent in the prior year over year period (from 2011Q4 to 2012Q4), this indicates that large hotels are declining at a faster rate on a year over year basis.

There continues to be a divergence between the trends for large and small hotels (with large hotels declining in price and small hotels increasing), as shown in Exhibit 4. This is a continuation of the trend from the previous quarter.

**About the Cornell Hotel Indices**

In our inaugural issue of the Cornell Hotel Index series, we introduced three new quarterly metrics to monitor real estate activity in the hotel market. These are a large hotel index (hotel transactions of $10 million or more), a small hotel index (hotels under $10 million), and a repeat sales index (RSI) that tracks actual hotel transactions. These indices are constructed using the CoStar and Real Capital Analytics (RCA) commercial real estate databases. For the repeat-sale index, we compare the sales and resales of the same hotel over time. All three measures provide a more accurate representation of the current hotel real estate market conditions than does reporting average transaction prices, because the average-price index doesn’t account for differences in the quality of the hotels, which also is averaged. A more detailed description of these indices is found in the first edition of this series, “Cornell Real Estate Market Indices,” which is available at no charge from the Cornell Center for Real Estate and Finance (CREF). In this and subsequent issues, we present updates and revisions to our three hotel indices along with commentary and supporting evidence from the real estate market.
Exhibit 5

Large hotel index, with three-year and five-year moving averages

Exhibit 6

Year-over-year change in large-hotel index, with moving-average trendline

Sources: Cornell Center for Real Estate and Finance, CoStar, Real Capital Analytics
Hotels are also trending upwards in terms of repeat sales. The repeat sale of hotels in Exhibit 9 based on the full sample echoes a similar story to that for smaller hotels. The repeat sale index (full sample) stands at 114.79 (2013Q1), which is above where it was as of the first quarter of 2010 as well as the second quarter of 2005. The repeat hotel sale index rose 1.4 percent on a year over year basis (2012Q1 to 2013Q1) and 2.2 percent on a quarterly basis (2012Q4 to 2013Q1).

Cap rates have inched higher. For the fourth quarter of 2012, the latest quarter for which ACLI reports data on hotel cap rates, cap rates have increased from 6.1 percent in 2012Q3 to 7.2 percent in 2012Q4. Exhibit 10 shows that this index has increased from 6.1 percent in 2012Q3 to 7.2 percent in 2012Q4. Exhibit 10 shows that this trend continues.

Large hotels continue their downward spiral. Exhibit 5 shows that the large-hotel index continues to lose momentum. The index has firmly crossed below its three-year moving average and continues to trend downwards toward its five-year moving average. Consistent with this view, Exhibit 6 provides further evidence that the large-hotel index is declining at a faster rate on a year over year basis, decreasing from -7.4 percent (2011Q4 to 2012Q4) to -10.8 percent (2012Q1 to 2013Q1), as mentioned previously. The large hotel index has also declined in the last two quarters. In summary, large hotels continue their downward spiral.

Smaller hotels continue to gain positive momentum. In contrast to larger hotels, Exhibit 7 shows that the price of smaller hotels continues to exhibit positive momentum, with the performance of smaller hotels finally surpassing their five-year moving average. The year over year evidence in Exhibit 8 is consistent with our moving average analysis. The small-hotel index increased 11 percent over the 2012Q1 to 2013Q1 period and experienced a 1-percent increase on a quarterly basis.

2 As explained in our initial publication in this series, we report two repeat sale indices. The repeat sale full sample index uses all repeat sale pairs whereas the repeat sale index with a base of 100 at 2000Q1 uses only those sales that occurred on or after the first quarter of 2000. In other words, the latter repeat sale index thus doesn’t use information on sales prior to the first quarter of 2000. As such, if a hotel sold in 1995 and then sold again in 2012, it would be included in the first repeat sale index e.g., repeat sale full sample index but it would not be included in the latter repeat sale index.
Exhibit 8

Year-over-year change in small-hotel index, with moving-average trendline

Sources: Cornell Center for Real Estate and Finance, CoStar, Real Capital Analytics

Exhibit 9

Hotel repeat-sale index, three-year moving average, and five-year moving average

Sources: Cornell Center for Real Estate and Finance, CoStar, Real Capital Analytics
Exhibit 10

Decomposition of ACLI hotel capitalization rates into risk premium and risk-free rate

Exhibit 11

Loan origination volume for hotels
is not only due to a rise in the rate on the 10-year Treasury bond (constant maturity) from 1.64 percent to 1.71 percent but also an increase in the hotel cap rate spread over the 10-year treasury, which rose from 4.45 percent to 5.49 percent. This suggests that investors are demanding a higher premium due to higher anticipated risk from investing in this asset class. Since the ACLI cap rates tend to be associated with large hotel deals, the increase in hotel cap rate is consistent with our previous observation that the price of large hotels continue to decline.

**Loan origination volume for hotels has declined.**

Exhibit 11 shows that not only has the hotel origination volume declined approximately 36 percent on a year over year basis, but it has also decreased 69 percent on a quarter over quarter basis as well.

**Mortgage financing cost has also declined.** Although hotel loan origination activity has declined, the cost of obtaining hotel financing also declined. The interest rate on Class A full-service hotels declined from 4.72 percent in the fourth quarter of 2012 to 4.5 percent at the end of the first quarter of 2013 (for Class B properties, the change for that period was from 4.97 percent to 4.75 percent). Exhibit 12 and Exhibit 13 depict interest rate spreads relative to different benchmarks. Exhibit 12 shows the spread between Class A (B&C) interest rates on full service hotels over the ten-year Treasury bond. Exhibit 13 shows the spread between the interest rate on Class A (B&C) full service hotels over the interest rate corresponding to non-hotel commercial real estate which we hereafter call the hotel real

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3 Loan origination volume is obtained from the quarterly survey of commercial/multifamily mortgage bankers originations published by the Mortgage Bankers Association.
**Exhibit 13**

**Interest-rate spreads of hotels versus non-hotel commercial real estate**

![Interest-rate spread chart](chart_image)

*Source: Cushman Wakefield Sonnenblick Goldman*

**Exhibit 14**

**Hotel repeat sales index versus NAREIT lodging/resort price index**

![Price index chart](chart_image)

*Source: Cornell Center for Real Estate and Finance, NAREIT*
Not only has the spread associated with Class A hotels (2.6%) and Class B&C (2.85%) continued to narrow (Exhibit 12), but also the hotel real estate premiums for both higher quality (.50%) and lower quality (.64%) hotels have declined relative to the previous quarter (from .57% for higher quality properties, and from .71% for lower quality hotels; Exhibit 13). The hotel real estate premium for higher quality hotels is now larger than its historical median of .47 percent, while the premium for Class B&C hotels is slightly lower than its historical median of .70 percent. The reduction in the premium in Exhibit 13 is a signal that the perceived default risk for hotel properties has decreased relative to the four major commercial real estate property types in the first quarter of 2013.

4 The interest rate on hotel properties is generally higher than that for apartment, industrial, office, and retail properties, in part because hotels’ cash flow is commonly more volatile than that of other commercial properties.

A look ahead: Reading the tea leaves. Exhibit 14 compares the performance of the repeat sales index relative to the NAREIT Lodging/Resort Price Index. The repeat sales index tends to lag the NAREIT index by several quarters. This is consistent with prior academic studies which find that securitized real estate is leading indicator of underlying real estate performance since the stock market is forward looking or efficient. Based on the NAREIT Lodging Price Index, it appears that prices should rise slightly in the next quarter for our Cornell Repeat Sale Hotel Index (full sample). Another forward looking measure is the architecture billings index (ABI) for commercial and industrial property.5 The ABI anticipates non-residential construction activity by approximately 9 to 12 months. According to material posted on their website: “The indexes are developed from the monthly Work-on-the-Boards survey panel where participants are asked whether their billings increased, decreased, or stayed the same in the month that just ended.

5 http://www.aia.org/practicing/economics/aia076265
According to the proportion of respondents choosing each option, a score is generated, which represents an index value for each month. Exhibit 15 offers a confirmatory view of a rise in future prices. Based on both the NAREIT and ABI indicators, we thus expect to see a continued growth in the sale price of hotels on a repeat sales basis.

An additional forward looking measure is the ISM: Purchasing Managers Index (Diffusion index, SA). The National Association of Purchasing Managers (NAPM) index is based on a survey of over 250 companies within twenty-one industries covering all 50 states. It not only measures the health of the manufacturing sector but is a proxy for the overall economy. It is calculated by surveying purchasing managers for data about new orders, production, employment, deliveries, and inventory, in descending order of importance. A reading over 50 percent indicates that manufacturing is growing, while a reading below 50 percent means it is shrinking. We use the NAPM index (now known as the ISM index) in this study as a measure of business traveler demand and anticipated business confidence. Exhibit 16 shows that the NAPM index is a leading indicator of the hedonic index for high priced hotels (≥$10 million). The exhibit provides a confirmatory signal that we expect a slight to moderate increase in the transaction price of hotels equal to or greater than $10 million for the next quarter since economic activity in the manufacturing sector has continued to expand in March for the fourth consecutive month according to the NAPM index.

Our final forward looking measure is the Consumer Confidence Index from the Conference Board which we

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6 The NAPM index is also thought to be an early indicator of inflationary pressures.
use as a proxy for anticipated consumer demand for leisure travel and a leading indicator of the hedonic index for low priced hotels (<$10 million). Although the consumer confidence index fell in March (blue line), based on the three-month moving average trendline (in red) in Exhibit 17 and an increase in the consumer confidence index for April, we anticipate a continuation of an upward trend in the transaction prices for low priced hotels.

**Hotel Valuation Model (HOTVAL).**

We have updated our hotel valuation regression model to include the transaction data used to generate this report. We provide this user friendly hotel valuation model in an excel spreadsheet entitled HOTVAL Toolkit as a complement to this report which is available for download from our CREF website.
ABOUT THE AUTHORS


Adam D. Nowak is an assistant professor of economics at West Virginia University. He earned degrees in mathematics and economics at Indiana University – Bloomington in 2006 and a degree in near-east languages and cultures that same year. He received a Ph.D. from Arizona State University last May. His thesis title was “Eigenvector Methods and Cointegrated Series.” Nowak taught an introduction to macroeconomics course and a survey of international economics at Arizona State. He was the research analyst in charge of constructing residential and commercial real estate indices for the Center for Real Estate Theory and Practice at Arizona State University.

Robert M. White, Jr., CRE, is the founder and president of Real Capital Analytics Inc., an international research firm that publishes the Capital Trends Monthly. Real Capital Analytics provides real time data concerning the capital markets for commercial real estate and the values of commercial properties. White is a noted authority on the real estate capital markets with credits in the Wall Street Journal, Barron’s, The Economist, Forbes, New York Times, Financial Times, among others. In addition, he was named one of National Real Estate Investor Magazine’s “Ten to Watch” in 2005, Institutional Investor’s “20 Rising Stars of Real Estate” in 2006, and Real Estate Forum’s “10 CEOs to Watch” in 2007. Previously, White spent 14 years in the real estate investment banking and brokerage industry and has orchestrated billions of commercial sales, acquisitions and recapitalizations. He was formerly a managing director and principal of Granite Partners LLC and spent nine years with Eastdil Realty in New York and London. Mr. White is a Counselor of Real Estate, a Fellow of the Royal Institution of Chartered Surveyors and a Fellow of the Homer Hoyt Institute. He is also a member of numerous industry organizations and a supporter of academic studies. White is a graduate of the McIntire School of Commerce at the University of Virginia.

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