OPERATING INCOME FORECASTS FOR MARKETS AND THE NATION

October 24, 2019

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REVENUE AND EXPENSE ESTIMATES AND FORECAST

TRENDS® DATA:
• Contains data on individual properties
• Source of “same-store” overlapping panel
• Is not a complete, exhaustive sample of properties
• Is not a random sample of properties
• Volunteer sample
• Favors branded properties
• Can be used to estimate relationships between occupancy, ADR, and overall market conditions with revenues and expenses.
IDENTIFICATION STRATEGY

Trends® Data
- ADR
- Occupancy
- Revenues
- Expenses

CBRE EA
- Personal Income
- Employment
- Inflation

STR Data
- Market Level ADR
- Market Level Occupancy
- Representative Sample

Investment Performance
- Market Level Expenses
- Market Level Revenues

ESTIMATION STRATEGY

- We would like to account for persistent shocks in our model:
  - Big drops or gains in one period could have some effect on the future path of hotel performance
  - Shocks have some permanent effect
  -Conversely, big shocks are allowed to be induced by permanent, unobserved changes to the market

The Arellano-Bond-Blundell systems dynamic panel estimator allows for consistent estimation of the relationships in an overlapping panel with lagged dependent variables.
VARIABLES

Variables Estimated:
• Rooms Revenue/ Expense
• Food and Beverage Revenue/ Expense
• All Other Revenue/ Expense
• NOI Estimate = Revenues – Expenses – Management Fee

Variables That Drive Estimates:
• ADR
• Occupancy
• Employment
• Personal Income
• Population
• All cash variables converted to real dollar values using CPI

NATIONAL FORECAST
RESULTS AND FORECAST: REVPAR CHANGE UNDERSTATES IMPACT OF SWINGS

NOI and RevPAR: Upper-Priced United States

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.

UPCOMING REVPAR SLUMP ALREADY UNDERWAY IN NOI

NOI and RevPAR, Detail: Upper-Priced United States

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
UPCOMING REVPAR SLUMP ALREADY UNDERWAY IN NOI

Change in ADR and Occupancy: Lower-Priced United States

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.

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UPCOMING REVPAR SLUMP ALREADY UNDERWAY IN NOI

NOI and RevPAR, Detail: Upper-Priced United States

Percent Change

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.

NATIONAL FORECAST

FIVE YEAR HISTORY AND FORECAST (ANNUAL)

United States—All Hotels—Baseline Forecast Scenario

<table>
<thead>
<tr>
<th>Year</th>
<th>Δ RevPAR</th>
<th>Δ EBIDTA</th>
<th>Δ NOI</th>
<th>Op Rate</th>
<th>Δ Value</th>
<th>Δ RevPAR</th>
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<td>7.7%</td>
<td>4.3%</td>
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<tr>
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<td>8.9</td>
<td>6.4%</td>
<td>3.1%</td>
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Source: CBRE Hotels Americas Research, Q2 2019.
UPPER-PRICED REVENUE DECOMPOSITION
IMPORTANCE OF FOOD AND BEVERAGE ACROSS MARKETS

REVENUE DECOMPOSITION: NATIONAL UPPER-PRICED
Revenue Decomposition: Upper-Priced United States

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
MARKET FOCUS: ORLANDO

Revenue Decomposition: Upper-Priced Orlando

Dollars Per Room Per Night

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.

MARKET FOCUS: NEW YORK

Revenue Decomposition: Upper-Priced New York

Dollars Per Room Per Night

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
MARKET FOCUS: HOUSTON
Revenue Decomposition: Upper-Priced Houston

Dollars Per Room Per Night

Forecast

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.

EXPENSE DECOMPOSITION
CONTROLLING GROWTH IN EXPENSES
MARKET FOCUS: NEW YORK

NOI and RevPAR:

Upper-Priced New York

Percent Change

Forecast

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.

MARKET FOCUS: NEW YORK

NOI and RevPAR, Detail:

Upper-Priced New York

Percent Change

Forecast

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
ADR CHANGES DON’T AFFECT COSTS AS MUCH

Change in ADR and Occupancy: Upper-Priced New York

Sources: CBRE EA, CBRE Hotels, STR Q4 2019

FIXED COSTS GIVE EXPENSES MORE INERTIA

Changes in Expenses and Revenues: Upper-Priced New York

Sources: CBRE EA, CBRE Hotels’ Americas Research, STR Q4 2018.
LOWER-PRICED AND LIMITED SERVICE HAVE CLOSER LINK BETWEEN EXPENSES AND REVENUES

Changes in Expenses and Revenues, Lower-Priced, New York

Sources: CBRE EA, CBRE Hotels' Americas Research, STR Q4 2018.

EFFECTS OF SPECIAL EVENTS: CHICAGO 2021

NOI and RevPAR, Detail: Upper-Priced, Chicago

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
MARKET FOCUS: CHICAGO
Change in ADR and Occupancy: Upper-Priced Chicago

Percent Change

Forecast

Sources: CBRE EA, CBRE Hotels, STR Q4 2019

MARKET FOCUS: LOS ANGELES, DECLINING SHARE OF F & B EXPENSE
Expense Decomposition: Upper-Priced Los Angeles
Dollars Per Room Per Night

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
MARKET FOCUS: LOS ANGELES

NOI and Rooms Revenue as a Percentage of Total Revenue, Upper-Priced Los Angeles

Percent of Total Revenue

Forecast

Sources: CBRE EA, CBRE Hotels' Americas Research, STR Q4 2018.

MARKET FOCUS: ORLANDO INCREASING SHARE OF F&B

Expense Decomposition: Upper-Priced Orlando

Dollars Per Room Per Night

Forecast

Sources: CBRE EA, CBRE Hotels, STR Q4 2019.
MARKET FOCUS: ORLANDO

NOI and Rooms Revenue as a Percentage of Total Revenue, Upper-Priced Orlando

Percent of Total Revenue

Sources: CBRE EA, CBRE Hotels’ Americas Research, STR Q4 2018.

THANKS

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