Understanding Hotel Valuation Techniques

Giuliano Gasparini
Objectives

- Why do we do valuations?
- Why hotel are different from any other real estate?
- What is value?
- Understanding hotel valuation techniques
- Conclusion: what is important to have in order to produce a good hotel valuation?
- Conclusion
Why do we do valuations?

Because:

- companies in the stock-exchange market need to update the value of their assets every year;
- hotel owners might be going to a bank to ask for a loan offering the hotel as collateral;
- hotel investors might be interested in purchasing a specific hotel;
- hotel owners might be willing to sell their hotel;
- A company would like to merge with another company and need to understand how much capital they are bringing through their assets;
- Many other reasons…
Why hotel are different from any other real estate?

We have always been told that the price of an hotel is equal to the price of five little green houses...

....IT IS NOT TRUE!
Why hotel are different from any other real estate?

OFFICE = valued on m² basis

RENTED ON A m² BASIS
GENERATES CASH-FLOW ON A M² BASIS

RESIDENTIAL = valued on m² basis

RENTED ON A m² BASIS
GENERATES CASH-FLOW ON A M² BASIS
Why hotel are different from any other real estate?

Hotels are not rented on a m² basis as they do not generate cash-flow on a m² basis

What is the basis of hotel income generation?

Yotel, London Gatwick (UK)  Banfi Castle, Tuscany (Italy)  W Hotel, Barcelona (Spain)
Why hotel are different from any other real estate?

Hotels cash flow is generated by:

- Rooms
- Food & Beverage
- Gym / Spa / Health Centre
- Minor Operating Department
What is a value?

- Open Market Value
- Likely Future Value
- Fair Value
- Investment Value
- Market Value
- Residual Land Value

Calculation of Worth

Mortgage Landing Value
What is a value?

“Market Value is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm’s-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion.”

IVSC 1
Hotel valuation techniques

Fun
- 10,000 Rule

Basic
- EBITDA multiplier
- Yield

Expert
- Replacement Cost
- Sales Comparables – on a per room basis
- Net Present Value of future cash flows
Hotel valuation techniques

Fun
- 10,000 Rule
- Take the price of a tin of coke from the hotel mini-bar and multiply it for 10,000

Example
- Coke price = 4 Euro
- Hotel value = 40,000 Euro per room
Hotel valuation techniques

Example
< Coke price = 4 Euro
< Hotel value = 40,000 Euro per room

Limitations
< Price of coke in mini-bar do not increase in the same way as hotel cash flows (imagine a 3 star and a 5 star hotel)
< This methodology does not take into consideration any performance results for the hotel. If the hotel is making or loosing money, room price is the same.
< DO NOT TAKE IT TOO SERIOUSLY!
Hotel valuation techniques

**Basic**

- EBITDA multiplier
- Yield
Hotel valuation techniques

Basic

- EBITDA multiplier
- Yield

- Take hotel’s EBITDA and multiply it by a multiplier in accordance to hotel’s market, position, location, past performances, etc.

Example

- EBITDA = 2,000,000 US$
- Multiplier = 12
- Hotel Value = 24,000,000 US$
Hotel valuation techniques

Basic
- EBITDA multiplier
- Yield

Take hotel’s EBITDA and divide it by your expected yield

Example
- EBITDA = 1,000,000 Euro
- Expected level of yield = 7%

Hotel Value = \( \frac{1,000,000}{7\%} \) = 14,285,000
Hotel valuation techniques

Expert

- Replacement Cost
- Sales Comparables – on a per room basis
- Net Present Value of future cash flows
Hotel valuation techniques

Expert

- **Replacement Cost** - an ideal average purchaser, having an average level of information, will very likely buy a property at a maximum price that is equivalent to the cost of building a similar property that features the same level of utility.
- **Sales Comparables** – on a per room basis
- **Net Present Value** of future cash flows
Hotel valuation techniques

Expert

- **Replacement Cost** - A ideal average purchaser, having an average level of information, will very likely buy a property at a maximum price equivalent to the cost of building a similar property that features the same level of utility.

Example

- We need many information such as:
  - Construction cost per m²
  - FF&E
  - Year of construction
  - ...
Replacement Cost

Past
- Construction costs
- Labor costs
- FF&E
- ...

Today
- Construction costs
- Labor costs
- FF&E
- ...

Replacement Cost

Past
- Construction costs
- Labor costs
- FF&E
- ...

Today
- Construction costs
- Labor costs
- FF&E
- ...

Technology has advanced and new building techniques make building today cheaper than yesterday.
Replacement Cost

Past

• Construction costs
• Labor costs
• FF&E
• ...

Today

• Construction costs
• Labor costs
• FF&E
• ...

Labor costs has changed drastically in the last 10-20 years.
This is even more drastic in developing countries.
Replacement Cost

Past

• Construction costs
• Labor costs
• FF&E
• ...

Today

• Construction costs
• Labor costs
• FF&E
• ...

Price of furniture and fixing has reduced extensively in the last decade.
Replacement Cost

**Past**
- Construction costs
- Labor costs
- FF&E
- ...

**Today**
- Construction costs
- Labor costs
- FF&E
- ...

After taking all this into account we still have to discount the result back in time to reflect that the hotel we are valuing is not brand new (depreciation)
Replacement Cost

If valuation methodology is this, how would you value these?

Dunboy Castle Resort, Cork (Ireland)
Ciragan Palace Kempinski, Istanbul (Turkey)
Lake Palace Hotel, Udaipur (India)
Replacement Cost – limitations

Deriving a hotel’s value by calculating the cost of replacing it and deducting an allowance for cumulative depreciation

USES
✓ Easy to be understood
✓ Useful for new properties

LIMITATIONS
✓ Not always possible, especially for historical hotels
✓ Does not reflect investor rationale
✓ Depreciation can be physical, functional and/or external
Hotel valuation techniques

**Expert**

- Replacement Cost
- **Sales Comparables – on a per room basis:** a potential standard buyer, featuring a standard level of information, will purchase a property at a maximum price equivalent to the sale price of a similar property with the same level of utility
- Net Present Value of future cash flows
Hotel valuation techniques

Expert

- **Sales Comparables – on a per room basis:** a potential standard buyer, featuring a standard level of information, will purchase a property at a maximum price equivalent to the sale price of a similar property with the same level of utility.

Example

- We are willing to purchase the Hotel Ritz in Paris
- Category: 5 star luxury
- 161 rooms
Sale Comparables

We investigate the market to find which hotel has been sold in 2010 and at which price:

- **Hotel Lutetia, 5 star**
  - 231 rooms
  - 145,000,000 Euro
  - Price per room = 627,000

- **Renaissance Arc de Triomphe, 5 star**
  - 118 rooms
  - 114,000,000 Euro
  - Price per room = 966,000

- **Hotel de Crillon, 5 star luxury**
  - 147 rooms
  - 250,000,000 Euro
  - Price per room = 1,700,000
Sale Comparables

Considering the above, how much would you be willing to pay?

Hotel Lutetia: 627,000
Renaissance Arc de Triomphe: 966,000
Hotel de Crillon: 1,700,000
Sale Comparables

- Considering the above, how much would you be willing to pay?
  - Similar location
  - Similar category and service
  - Similar number of rooms
  - Room pricing (12\textsuperscript{th} September):
    - Crillon: 680 Euro
    - Ritz: 850 Euro (25\% higher)

- We should expect to pay more / less than Hotel de Crillon?
  + 25\% = 2,125,000 per room  161 rooms = 342,125,000

Price range: 1,700,000 – 2,125,000
Sales Comparable – limitations

USES
✓ Provides a range of values
✓ Compare hotels currently for sale to existing properties that have been already sold on the market (the market has been tested for theses levels of prices)
✓ Gives an indication of real buyers motivation (market-driven price)

LIMITATIONS
✓ No hotel is truly comparable
✓ Value is dependent on buyer motivation (what if special motivation?)
✓ Economic environment may differ (location, time)
✓ Reliable hotel sales data not always available
Hotel valuation techniques

Expert

- Replacement Cost
- Sales Comparables – on a per room basis
- Net Present Value of future cash flows: Net Present Value of future cash flows generated by the property
Hotel valuation techniques

**Expert**

- Replacement Cost
- Sales Comparables – on a per room basis
- **Net Present Value of future cash flows:** Net Present Value of future cash flows generated by the property

**Conversion of the anticipated benefits of property ownership (annual income) into an estimate of present value**
Hotel valuation techniques

“Property with trading potential, such as hotels, fuel stations, restaurants, or the like, the Market Value of which may include assets other than land and buildings alone. These properties are commonly sold in the market as operating assets and with regard to their trading potential. Also called property with trading potential.

IVSC GN 12, para 3.5
Hotel valuation techniques

- *Net Present Value of future cash flows*: Net Present Value of future cash flows generated by the property

This can be done through the basic methods explained:

- Single Cap Rate
- Multipliers
- Income Capitalization – DCF Approach
Hotel valuation techniques

- **Net Present Value of future cash flows**: Net Present Value of future cash flows generated by the property.

This can be done through the easy methods explained:

- **Single Cap Rate**: deriving a hotel’s value by applying a capitalization rate to the hotel’s net income
- **Multipliers**
- **Income Capitalization – DCF Approach**
## Single Cap Rate – example

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. of rooms</td>
<td>100</td>
</tr>
<tr>
<td>Hotel Occupancy</td>
<td>67%</td>
</tr>
<tr>
<td>Average Room Rate</td>
<td>130</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>4,768,000</td>
</tr>
<tr>
<td>House Profit / GOP</td>
<td>2,335,000</td>
</tr>
<tr>
<td>Net Operating income / EBITDA</td>
<td>1,478,000</td>
</tr>
<tr>
<td>Capitalization Rate</td>
<td>9%</td>
</tr>
</tbody>
</table>

- Hotel Value: 16,400,000
- Value per room: 164,000
Single Cap Rate – limitations

USES

- Lead to quick results
- Used commonly and widely understood

LIMITATIONS

- It is based on one (last) income year only
- Do not reflect propensity of income to rise or fall
- Not always reliable (small changes in the cap rate produce large effect on value)
Hotel valuation techniques

- **Net Present Value of future cash flows**: Net Present Value of future cash flows generated by the property.

This can be done through the easy methods explained:

- **Single Cap Rate**
- **Multipliers**: deriving a hotel’s value by applying a capitalization rate to an estimate of the hotel’s stabilized net income
- **Income Capitalization – DCF Approach**
## Multiplier – example

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. of rooms</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Hotel Occupancy</td>
<td>67%</td>
<td>75%</td>
</tr>
<tr>
<td>Average Room Rate</td>
<td>130</td>
<td>155</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>4,768,000</td>
<td>6,360,000</td>
</tr>
<tr>
<td>House Profit / GOP</td>
<td>2,335,000</td>
<td>3,180,000</td>
</tr>
<tr>
<td>Net Operating income / EBITDA</td>
<td>1,478,000</td>
<td>1,910,000</td>
</tr>
<tr>
<td>Capitalization Rate</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td><strong>16,400,000</strong></td>
<td><strong>19,100,000</strong></td>
</tr>
<tr>
<td>Value per Room</td>
<td>164,000</td>
<td>191,000</td>
</tr>
</tbody>
</table>
Multiplier – limitations

USES

✓ More comprehensive approach (take into account management factors)
✓ Reflects the possibility of income to rise or fall
✓ Used more and more often and understood more and more widely

LIMITATIONS

✓ The valuer needs more details regarding hotel operation and management
✓ The valuer needs a better understating of the market and the trading potential of the asset in that market
Hotel valuation techniques

- **Net Present Value of future cash flows**: Net Present Value of future cash flows generated by the property
- Single Cap Rate
- Multipliers
- **Income Capitalization – DCF Approach**: deriving a hotel’s value by applying an appropriate discount rate to a projection of the hotel’s estimated future cash flow
Income Capitalization – DCF Approach

- We assume a holding period of 10 years
- In each year we estimate the trading potential of the property
- In each year we estimate the operational result of the property
- We assume a sale at the end of year 10 (Terminal Asset Value)
Income Capitalization – DCF Approach

![Diagram illustrating the DCF approach with EBITDAs and terminal asset value over years.](image-url)
Income Capitalization – DCF Approach

![Graph showing Income Capitalization and DCF Approach]

- **Years:** 0, 1, ..., 10
- **EBITDAs:** Dollars
- **Terminal Asset Value:** Dollars

The graph illustrates the income capitalization approach using the discounted cash flow (DCF) method.
Income Capitalization – DCF Approach

Terminal Asset Value

Years

EBITDAs

$
Income Capitalization – DCF Approach
Income Capitalization – Discount Factor

**DISCOUNT FACTOR**

- Reflect the time value of money
- Reflect the risk of the investment

- WACC = Weighted Average Cost of Capital
## Income Capitalization – Example

### Yearly Data

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. of rooms</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Hotel Occupancy</td>
<td>67%</td>
<td>69%</td>
<td>71%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
</tr>
<tr>
<td>Average Room Rate</td>
<td>125</td>
<td>128</td>
<td>131</td>
<td>137</td>
<td>142</td>
<td>148</td>
<td>154</td>
<td>160</td>
<td>166</td>
<td>173</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>4,585,313</td>
<td>4,816,631</td>
<td>5,104,931</td>
<td>5,383,905</td>
<td>5,599,261</td>
<td>5,823,231</td>
<td>6,056,161</td>
<td>6,298,407</td>
<td>6,550,343</td>
<td>6,812,357</td>
</tr>
<tr>
<td>Net Operating income / EBITDA</td>
<td>1,421,447</td>
<td>1,493,156</td>
<td>1,582,529</td>
<td>1,669,010</td>
<td>1,735,771</td>
<td>1,805,202</td>
<td>1,877,410</td>
<td>1,952,506</td>
<td>2,030,606</td>
<td>2,111,831</td>
</tr>
<tr>
<td>Cap Rate</td>
<td>9,0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal Asset Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23,464,786</td>
<td></td>
</tr>
<tr>
<td>Cash-flow</td>
<td>1,421,447</td>
<td>1,493,156</td>
<td>1,582,529</td>
<td>1,669,010</td>
<td>1,735,771</td>
<td>1,805,202</td>
<td>1,877,410</td>
<td>1,952,506</td>
<td>2,030,606</td>
<td>2,111,831</td>
</tr>
</tbody>
</table>

### Financial Calculations

<table>
<thead>
<tr>
<th>Value</th>
<th>16,561,804</th>
</tr>
</thead>
<tbody>
<tr>
<td>say</td>
<td>16,600,000</td>
</tr>
</tbody>
</table>

### WACC Calculation

<table>
<thead>
<tr>
<th>LTV</th>
<th>60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>40%</td>
</tr>
<tr>
<td>Interest</td>
<td>6%</td>
</tr>
<tr>
<td>Equity Yield</td>
<td>22%</td>
</tr>
</tbody>
</table>

### WACC

| 12,55% |
Income Capitalization – limitations

USES

✓ Provides a better overview of the property’s trading potential
✓ Reflects a value based on future and not on present or past
✓ Take into account operations and management characteristics
✓ (possibility to) Take into account market-wide changes (Olympic, Games, New Conference Centres, etc...)

LIMITATIONS

✓ The valuer needs to understand in depth the market and the trading potential of the asset in that market
✓ The valuer needs to understand in depth the hotel specific operation and management
✓ The valuer needs to be experienced of the hospitality sector in order to estimate all cash-flows that are the basis of the valuation
Valuation data wish list

**What is important to have:**
- Historical data for the local market
- Historical data of the property (Profit & Loss Statements)

**What is important to know:**
- Understanding of the trading potential of the market (demand versus supply, new supply)
- Understating of trading potential of the property (market penetration a projections of market penetration)
- Understanding of the operational side in order to produce representative cash flows
- Understanding of the financial aspects (current LTV, equity yield, etc) and of the risk connected to this investment
Comparison with stock market

Two approaches to valuation:

**Intrinsic Value**: is determined by the cash flows you expect that asset to generate over its life and how uncertain you feel about these cash flows. Assets with high and stable cash flows should be worth more than assets with low and volatile cash flows.

**Relative Value**: in relative valuations assets are valued by looking at how the market prices similar assets. Thus, determining what to pay for a house, you would look at what similar houses in the neighbourhood sold for.

“The Little Book of Valuation” – Aswath Damodaran
Professor of Finance at the Stern School of Business at New York University
In intrinsic valuations there are 4 pieces of information that determine value:

1. Cash flows from existing assets;
2. Expected growth in these cash flows;
3. Discount rate;
4. The length of time before the business becomes mature.

“The Little Book of Valuation” – Aswath Damodaran
Professor of Finance at the Stern School of Business at New York University
Have we reached our objectives?

- Why do we need hotel valuations?
- Why hotel valuations are different?
- What is “Value”
- Valuation techniques:
  - Replacement Cost
  - Sales Comparables – on a per room basis
  - Net Present Value of future cash flows
  - EBITDA multiplier
  - Yield
  - 10,000 Rule
- Uses and limitations for each valuation technique
- What is important to have to produce good valuations?
What else would be part of the course?

- Which are the KPIs for hotel valuation?
- How is it possible to value hotel under development?
- How is it possible to value hotels that are not yet built?
- How is it possible to value hotels that are loosing money?
- How the value of hotels changes throughout life cycle?
- Effect of a Brand: how does the value change if the hotel becomes branded?
- What is the different between Market Value and Liquidation Value?
- What are the requirements of RICS for valuations?
- Who buys what? Which is the perfect buyer for which hotel?
- How can we value a Resort? (Resort business models)
- ...

...
Contacts

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