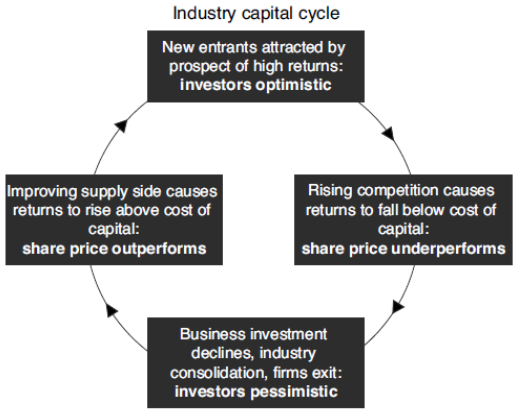
The theory of how a capital cycle works is very simple: capital is attracted into high-return businesses and leaves when returns fall below the cost of capital. This process is not static, but cyclical – there is constant flux. The inflow of capital leads to new investment, which over time increases capacity in the sector and eventually pushes down returns. Conversely, when returns are low, capital exits and capacity is reduced; over time, then, profitability recovers.

The key to the capital cycle investing approach is to understand how changes in the amount of *capital employed / supply* within an industry are likely to impact future returns.

High current profitability often leads to overconfidence among managers, who confuse benign industry conditions with their own skill. Both investors and managers are engaged in making demand projections, and are given to extrapolating current trends. In a cyclical world, they think linearly. Such forecasts have a wide margin of error (anchoring and recency bias). In good times, the demand forecasts tend to be too optimistic and in bad times overly pessimistic. High profitability loosens capital discipline in an industry. When returns are high, companies are inclined to boost capital spending. Competitors are likely to follow – perhaps they are equally hubristic, or maybe they just don't want to lose market share. And all players tend to increase capacity without taking into account the increase in supply due to competitors' capital spending (inside view).



The delay between investment and new production means that supply changes are lumpy and prone to overshooting. And supply is more easily assessed as changes in supply are generally announced in advance by industry participants, generally with great fanfare.

The capital cycle turns down as excess capacity becomes apparent and past demand forecasts are shown to have been overly optimistic. As profits collapse, management teams are changed, capital expenditure is slashed, and the industry starts to consolidate. *The reduction in investment and contraction in industry supply paves the way for a recovery of profits. For an investor who understands the capital cycle this is the moment when a beaten down stock becomes potentially interesting. However, brokerage analysts and many investors operating with short time horizons generally fail to spot the turn in the cycle but obsess instead about near-term uncertainty.*[1]

[1] Source of text and figure: Capital Returns

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Hotel industry: An analysis using the capital cycle approach

Below are a few figures on the evolution of the hotel industry over the past 16 years.[2]

Hotel industry	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Available room nights per day	25,000	26,000	29,000	31,000	35,000	39,285	46,982	48,475	61,795	71,531	84,313	94,255	101,177	107,695	113,622
% increase		4%	12%	7%	13%	12%	20%	3%	27%	16%	18%	12%	7%	6%	6%
Room demand per day	12,900	14,872	18,792	21,390	25,025	28,049	32,324	28,843	36,768	43,348	49,998	54,479	59,087	64,402	72,036
% increase		15%	26%	14%	17%	12%	15%	-11%	27%	18%	15%	9%	8%	9%	12%
Occupancy	52%	57%	65%	69%	72%	71%	69%	60%	60%	61%	59%	58%	58%	60%	63%
ARR	3,467	3,269	3,569	4,299	5,444	7,071	7,989	7,722	6,489	6,513	6,032	5,779	5,611	5,532	5,541
EBITDA margins	26%	27%	28%	34%	40%	46%	46%	41%	33%	32%	26%	26%	25%	24%	27%
RoCE	6%	5%	7%	10%	17%	22%	21%	12%	7%	7%	5%	3%	-1%	2%	5%

The pinkish red portion (2002-2007) represents the upcycle and the green portion (2008-2013) represents the downcycle.

In the upcycle, the supply increased at a CAGR of 8% while the demand increased at a CAGR of 14%. This considerable mismatch in supply and demand led to an increase in occupancy which increased from 52% in 2002 to 71% in 2007. The increased occupancy led to an increase in pricing power as measured by the ARR (average room rent) which increased by 13% CAGR from 2002 to 2007. Driven by this, the margins and returns on capital increased strongly.

As happens in capitalism, the increased profitability and returns on capital led to increased supply: both from existing players, and new players who want to capitalize on high return environment. Each player increases the supply without taking account the increase in supply in the industry driven by the other players. A question which might arise is why did the supply not increase more quickly? There are two reasons for the same:

- The supply increase begins once the returns on capital are near or higher than the cost of capital. The majority of the industry would not increase capacity near the trough or in the beginning of the upturn. This is because of two reasons: 1) As discussed before, the demand projections are generally myopic and hence in a downcycle pessimism prevails. 2) In and around a downcycle, the majority of the players would be more focused on survival, to service the debt (and the interest cost) raised during the previous capex cycle.
- Construction time for a hotel is anywhere between 4 to 5 years in India. This implies there can be no sudden change in supply.

Due to the supply increase in response to the high profitability, the capital cycle worked in reverse from 2007 to 2013. The occupancy and the ARRs declined, leading to depressed profitability and returns on capital.

As expected, the downcycle has led to a weakening of supply as the existing players are focusing more on sustainability and survival rather than expansion; the weaker players have had to shut shop and exit the industry. Players like the Leela who over expanded during the upcycle are in CDR.

[2] Source of data in tables: Hospitality Valuation Services (HVS) reports and Ace equity

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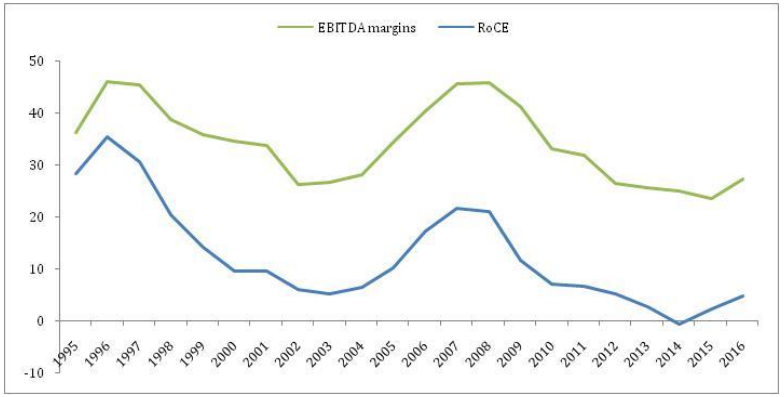
The adjacent table obtained from ace equity depicts EBITDA margins and RoCE for the listed companies in the hotel industry from 1996. The ARR and occupancy data is not available. The cycle is clearly observable from 1995. The peak in the first cycle was 1996, post which there was a downcycle till 2002, which then peaked in 2008 and subsequently dipped again.



The high fixed cost nature of industry (employee, power and maintenance costs form major portion) results in high operating leverage which comes into play quite clearly in both parts of the cycle.

Indications are that the industry is in the beginning stages of another upcycle.

- ARRs and the occupancy ratio both together have moved up together for the first time in many years (refer table above).
- Multiple branded hotels have already begun increasing ARRs and are seeing an increase in occupancy.
- Scuttlebutt and research indicates that the acquisition deals in the hotel sector has increased over the past two years. This is because in multiple cases, *the construction cost for a new hotel is much higher than the market cap / private purchase value. In the downcycle, there are many hotels which are making distress sales*.
- As shown in the first table, the supply addition in the last three years was much lower than the demand growth. Given the current low returns, lead time of construction and the fact that the industry is still around the trough, supply increase will be much slower.
- The supply pipeline going forward is also quite low as discussed below.
- Domestic demand contributes to 80% of the room night demand in India. Demand growth continues to be healthy driven by increased disposable income (tourism and eating out) and higher business activity (business tourists, meetings, conferences). Weddings are a major addition to the demand; with increased disposable income and weddings seen as a major status symbol, more and more weddings are happening in hotels who have built large banquet halls to cater to the same.

Supply pipeline

The supply pipeline over the next few years is much, much lower than historical average. This is evident from two factors:

- The data from Ace equity indicates that 21 of the largest listed hotel players have cumulatively spent only an average of 417cr on capex over the last four years. This is the lowest capex spending by listed companies since *1997, when the data included just 7 companies.* It is interesting to note here that the average capex over four years of the previous upcycle *was 1,600cr*.
- The below table is obtained from HVS, which did a survey of all major hospitality players across the country: both private and public, and calculated the proposed supply that would be added by 2021.

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Supply	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Proposed supply (by 2021)	% increase	% under active development	Luxury	Upscale	Mid market	Budget
Total	39,285	46,982	48,475	61,795	71,531	84,313	94,255	101,177	107,695	113,622	56912	50%	66%	7%	27%	40%	23%
% increase		20%	3%	27%	16%	18%	12%	7%	6%	6%							

The proposed supply would increase the total room capacity by 50% by 2021. Of the proposed supply, *only 66% is being actively developed* currently. The total supply would increase by a CAGR of 8.5% if the entire proposed supply comes on stream. If only the actively developed supply comes on stream, the CAGR is 6%.

In fact, there are certain cities where the supply growth for the next few years is less than 5% CAGR!

In an environment where the demand is expected to grow in double digits buoyed by both domestic and foreign visitors, and business and leisure tourists, this mismatch in supply and demand growth should lead to an increase in profitability and returns.

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