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# HOTEL CAPITALIZATION RATES AND THE IMPACT OF CAP EX

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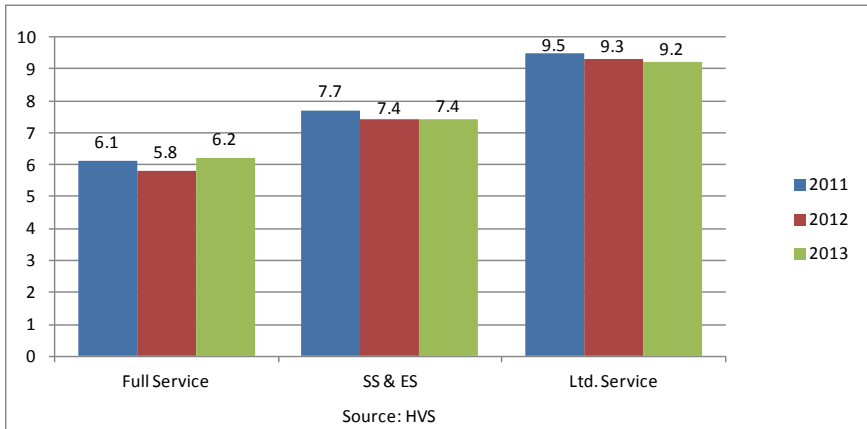


*Summary: While hotel capitalization rates hold steady in the current healthy market environment, the increasing need for capital improvements as assets age can affect values and rates of return. This article evaluates the impact of cap ex on hotel capitalization rates and investment exit strategies.*

Investors, lenders, analysts and appraisers look to the market to provide guidance on capitalization rates that are employed in their underwriting and valuation of income producing properties. Capitalization rates, which express the relationship between a property’s net income and its value, are commonly derived from actual sales transactions. A capitalization rate may be reported by a broker or other party to the sale or derived if the net income of the property at the time of the sale is available. While market participants often talk about what the cap rate is based on (historical or forward looking cash flow), the cost of capital improvements is rarely discussed and is often a hidden cost in transactions.

HVS derives capitalization rate and yield data from hotels that we appraise at the time of sale. Cap rates have been relatively stable over the past three years, reflecting a healthy market in terms of hotel operating performance and transaction activity. The following chart sets forth derived capitalization rates for three general product categories – Full Service/Luxury; Upscale Select Service and Extended-Stay; and Limited Service – derived by dividing a property’s historical TTM net income by the actual sales price.

### CAP RATES REMAIN STEADY



While averages can be seductively reassuring, the actual range of cap rates based on transactions is quite wide, as evidenced by the following data underlying the preceding chart. What this shows is that each hotel has its own story to tell in terms of operating performance and valuation.

### CAP RATES DERIVED FROM HISTORICAL NET INCOME AND PURCHASE PRICE

Property Type	2013		2012		2011	
	Average (%)	Range (%)	Average (%)	Range (%)	Average (%)	Range (%)
Full Service Incl. Luxury	6.2	2.9 - 7.9	5.8	1.5 - 11.7	6.1	0.05 - 10.9
Select Service & Extended Stay	7.4	2.5 - 14.2	7.4	4.0 - 11.7	7.7	3.2 - 12.6
Limited Service	9.2	5.4 - 12.9	9.3	3.7 - 12.2	9.5	0.03 - 30.0

Source: HVS San Francisco

One of the aspects to be considered in every hotel transaction is the prospect of capital improvements. How are capital improvements considered in the valuation process and what is their impact on the rates of return evidenced in the market?

Capital improvements made upon acquisition can greatly increase a buyer’s total investment in a hotel asset. The purchase price and cap ex (total “All In” investment) is often the better denominator to use in calculating capitalization rates because it more accurately reflects an investor’s anticipated rate of return, particularly if the capital improvements are defensive in nature, i.e. they are required to sustain existing cash flow, without the expectation of significant upside. If the capital improvements are intended to rebrand and/or reposition a property in the market, the only way to fully recognize the upside is through a multi-year forecast and discounted cash flow analysis. In such a case, the “going-in” rate would be expected to be below a theoretically stabilized cap rate due to the future upside anticipated from the capital improvements.

Most hotels undergo some degree of capital improvements following their purchase by a new owner, either due to brand-mandated product improvements, or because the new owner has a vision for the property and how it’s earning potential can be improved. A review was undertaken of HVS appraisals of hotels that sold in 2013 to evaluate 1) the percentage of hotels that had planned capital improvements at the time of sale and 2) what the cost of capital improvements equated to as a percentage of the purchase price. Note that cap ex in this article is defined as the cost of capital improvements above and beyond the reserve for replacement. The following chart sets forth this data by product category: Full Service/Luxury; Upscale Select Service and Extended-Stay; and Limited Service.

#### PERCENTAGE OF APPRAISED HOTELS REQUIRING CAP EX\* UPON SALE AND CAP EX AS % OF PURCHASE PRICE

Hotel Product Type	% w/Expected Cap Ex* Upon Sale	Cap Ex* as % of Purchase
Full Service	82	15
Select Service	76	13
Limited Service	71	12

\* Capital expenditures above and beyond reserve for replacement

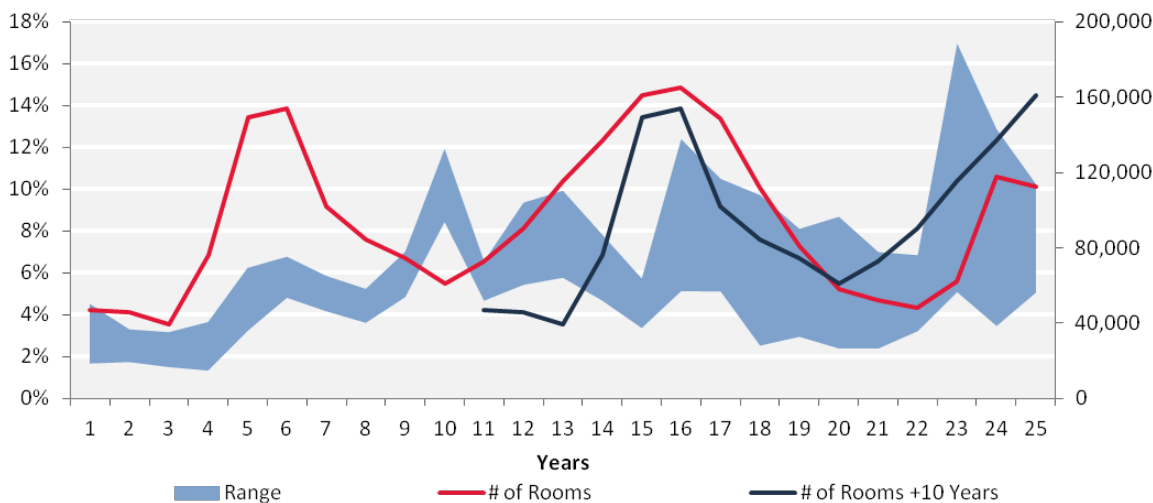
In all three categories, over 70% of the hotels appraised at the time of sale were anticipating capital improvements following the transaction, with full service/luxury hotels evidencing the need for cap ex most consistently.<sup>1</sup> Often the cost of a brand PIP is not known at the time an appraisal is performed, and the expense may be underestimated. The average planned capital expenditures, as a percentage of the purchase price, ranged from 12% for limited service hotels to 15% for full service/luxury hotels. The range of capital improvements as a ratio to price was fairly wide, from 2.1% for a newer select service hotel to over 30% for a luxury hotel. What this data indicates is that most hotels undergo capital improvements upon sale and the expenditures faced by a new owner are, on average, significant.

<sup>1</sup> Note that this data was based on information available to HVS at the time of the appraisal. We know from experience that a greater proportion of hotels ultimately require some capital investment upon sale and that the cost is more often than not higher than originally anticipated.



The need to consider cap ex is increasing in the hotel industry as the stock of hotel product ages; according to STR, 53% of hotels built within the past 50 years are 20 years or older. The following chart illustrates the range of cap ex as a percentage of revenue over the 25 year life of a hotel; the range was derived from the International Society of Hospitality Consultants (ISHC) CapEx 2000 Study of Capital Expenditures in the U.S. Hotel Industry. The red line overlaying the range of cap ex is the number of hotel rooms by age, as reported by STR. The number of hotels three years or less in age is currently low (only 3% of hotels 50 years or younger), reflecting the limited amount of new hotels opening since the economic downturn. Hotels built in the most recent 2005 to 2007 building cycle are already five to seven years of age, a point where capital improvements start to rise above the typical 4% of revenues reserve amount. Another bulge of hotels, built in the 1990's building cycle, are currently 14 to 16 years, of age, a point in a hotel's life cycle where cap ex increases significantly. Hotels built in the 1980s building cycle are over 23 years in age, when cap ex increases dramatically, as major improvements are required to extend the economic life of these assets. The blue line illustrates where the same inventory of rooms will be in their life cycle ten years from now. In ten years a critical mass of hotel rooms will reach the 15 to 17 and 22 to 25 years of their life, indicating that hotel investors and lenders need to be mindful of looming capital improvement requirements that may impact hotel values upon the exit of their loan or investment. While a current owner may not expect to own a hotel for a full ten years, when they do sell, the next owner will have to face the issue and can be expected to factor this cost into their purchase price.

**HOTEL CAP EX LIFE CYCLE OVERLAID WITH AGE OF US HOTEL POPULATION**



Source: STR and ISHC CapEx 2000 Study of Capital Expenditures in the U.S. Hotel Industry

As capital improvement costs rise so should capitalization rates based on current net income divided by the sales price, because the capital expense is, in essence, built into the cap rate. Given the wide range of capital costs from property to property, it becomes critical to assess the impact of the cap ex by overtly factoring in the actual cost anticipated upon sale. Cap rates derived based on the "All In" investment provide a better reflection of the real rate of return anticipated by the owner if capital improvements must be made to sustain the income stream going forward. Thus, it is valuable to calculate the capitalization rate based on both the purchase price "As Is" and on the "All In" investment. Cap rates

derived from these calculations also play a role in assessing the appropriate terminal or exit cap employed in a discounted cash flow analysis.

In appraisal theory, one looks at the “going-in” cap rate based on first year projected NOI, which provides an indication of how the next buyer will value the property at the end of the current purchaser’s holding period. The capitalization rate is then “loaded” by 100 to 200 basis points to reflect 1) the risk of achieving the projected NOI so far in the future, and 2) the cost of additional capital improvements that will be required of the next buyer at the time of sale. In valuing hotels, whether to justify a purchase price to an investment committee, underwriting a loan, or conducting an appraisal, the terminal capitalization rate employed does make a difference. As buyers compete to acquire quality assets, we find that terminal capitalization rates are often lowered to reach certain deal internal rate of return thresholds and, while this practice may be warranted, it should be undertaken with due consideration.

The following chart sets forth the capitalization rates derived from hotels that HVS appraised at the time of sale in 2013. Two capitalization rates are derived for each product type as follows: 1) by dividing the TTM NOI by the purchase price (“As Is”) and 2) by dividing the TTM NOI by the purchase price plus the budgeted capital expense (“All In”). The “As Is” cap rate reflects the actual price paid by the investor; it is termed “As Is” because it reflects the condition of the property upon sale. It is labeled “As Is” even though it reflects the present worth of future benefits (discounted cash flow of hotel’s anticipated net income and reversionary sales proceeds) that builds in the future upside anticipated by the capital improvements because the capital expense is deducted from the sum of the future cash flow. The “All In” cap rate reflects the rate of return on the total investment by the buyer, i.e. the purchase price plus the capital expense; it is labeled “All In” because it reflects the present worth of future benefits (discounted cash flow of hotel’s anticipated net income and reversionary sales) which equates to the purchase price plus the capital expense. The sum of the purchase price plus the cap ex is not the value of the property at the time of sale; rather, it represents the total investment anticipated by the buyer. The benefit of the capital expense can only be factored into the value of the property once the money has been spent and the improvements are completed; from a valuation perspective this would be termed the value “as complete” and reflects the value of the property prospectively, as of a future date, when the property’s upgrading project has been finished.

### CAP RATE DIFFERENTIAL – “AS IS” VS. “ALL IN”

Hotel Product Type	Cap Rate on Historical NOI		Range of Cap Rate Differential	Cap Rate on 1st		Range of Cap Rate Different
	"As Is" After Cap Ex	"All In" Before Cap		"As Is" After Cap	"All In" Before	
Full Service	0.0%	0.0%	20 - 180	7.2%	6.4%	10 - 230
Select Service	0.0%	6.9%	20 - 160	8.7%	7.8%	30 - 190
Limited Service	0.0%	0.0%	10 - 190	10.6%	0.0%	30 - 160

With so many hotels undergoing capital improvements upon sale, capitalization rates derived from sales data can be misleading in regards to the rates of return required by buyers. Yet this is often the only information available to analyze. Thus, derived average cap rate data based on the actual purchase price overall is likely skewed higher than the actual rates of return being realized in the marketplace because it does not reflect the capital improvements required upon sale. This phenomenon is positive, because hotel investors and lenders should be factoring in the impact of cap ex in their underwriting and exit strategies.

The data in the prior table illustrate that a capitalization rate derived based on an actual purchase price (“As Is” After Cap Ex Deduct) is consistently higher than a cap rate based on the “All In” investment, though the magnitude of the differential varies widely. For this data set, the average differential was 80 bps based on TTM NOI and impacts the value by 10%. The impact on the capitalization rate, while likely understated, is still fairly significant and illustrates that when hotel sales and their cap rates are evaluated, it is likely that the initial real rate of return is lower than indicated. What must be evaluated is the extent of the capital improvements and the “upside” that will be created upon completing the upgrades. Often buyers expect a dollar for dollar return on their capital improvements, i.e. they expect that if they purchase a hotel for \$X and invest \$Y in capital upgrades that the asset will be worth \$X + \$Y when the improvements are complete. Frequently, this does not turn out to be the case. Often the result is that the capital improvements are really necessary to maintain a property’s performance, or are able to give it a moderate lift, but not enough to fully justify the cost. In some cases however, particularly when the capital improvements are major and the property undergoes a repositioning, the value of the hotel upon stabilization, following completion of the improvements, does more than justify the capital expense. Assessing the factors that impact the future value of an asset is a critical step in the underwriting process. Some key questions to ask are:

1. **How much of the cap ex is going to upgrade the hotel’s infrastructure as opposed to guest and public areas?** Capital improvements that do not result in a hotel’s ability to generate more revenue or reduce expenses should be viewed as a component of the purchase price, i.e. they will be sunk costs that must generate a return based on the hotel’s current income stream.
2. **What is the condition of the hotel’s competitors? Have they recently upgraded their facilities or do they plan to do so in the near future? Are new hotels entering the market that will offer a newer, fresher product?** Capital improvements are often necessary to keep up with the competition, and thus future upside may be less than expected.
3. **What portion of the cap ex is being spent on items with short lives (soft goods) as opposed to longer lived items (casegoods) or building components that extend the hotel’s economic life (bathroom renovation/new PTAC units/building systems)?** Major investments such as a bathroom modernization may last for 10 to 15 years, while soft goods may require replacement again within an investor’s holding period.
4. **What is the overall age of the asset and how long does the franchise agreement have to run?** A hotel may be only 10 years into a 20 year agreement, but when the asset is sold or refinanced 7 years hence it will be only three years away from expiration of its agreement. Depending upon the condition of the asset and its market, the franchisor may not want to grant a new franchise agreement at all or won’t without an extensive PIP. **Should the potential for the loss of a franchise or rebranding to an alternate lower-priced brand be considered, and if so, what is the potential loss in revenue/net income and value?**

Given the capital intensive nature of hotels, a prudent investor can prepare a mid-to long term capital plan that takes a realistic look at the asset and what kind of capital improvements will be warranted over the anticipated holding period and by the new owner upon sale.

Let's look at the impact of the terminal cap rate selection in the valuation of a well-maintained select service property for a loan at the time of acquisition in 2013. The property is located in a healthy and generally stable market. The asset was built in 1997, so was 16 years old at the time of sale and facing expiration of its franchise agreement in four years. The buyer was able to negotiate a 15 year franchise agreement with the franchisor provided that the property was brought up to current brand standards at a cost of \$25,000 a room or \$2 million. Note that this PIP was fairly comprehensive, including a re-concepted lobby, but did not include a complete bath renovation and a number of other capital improvements that will be anticipated when the asset reaches a later age.

In this particular case, the property was projected to sustain its current occupancy over the projection period, and achieve only a moderate increase in ADR penetration – the net income of the property was basically stabilized, and the capital improvements were being made to retain the brand and sustain the current income stream. A mortgage-equity, ten-year discounted cash flow analysis was applied to the projected net income to value the property. Two valuation scenarios are presented; the only difference between the two scenarios is the terminal capitalization rate employed in the calculation of the reversionary proceeds – all other variables were kept equal.

In the first scenario an 11% terminal capitalization rate is employed, based on the recognition that the going rate based on the “As Is” value of the property is 10.5%; this reflects the actual exit cap for the current seller and provides a good guide for what should be employed in the valuation when the new owner (current buyer) exits the investment in ten years. The exit cap was raised to 11% for the valuation because the buyer is aware that ten years hence the franchise agreement will only have five more years before expiration and the property will be 26 years old at that point in time, exactly the age when cap ex needs escalate significantly. A case for a higher exit cap could certainly be made. In this case the “As Is” value equates to \$7,700,000; with the \$2,000,000 in capital improvements, the buyer’s “All In” investment equates to \$9,700,000. The current seller’s exit cap rate based on this transaction equates to 10.8% based on the purchase price and projected first year NOI, while the buyer’s going-in cap rate based on the total investment (purchase price plus cap ex) equates to 8.6%.

In the second scenario, the deal is underwritten more aggressively based on a different take of the asset and its prospects. Given the planned \$2,000,000 capital investment, a terminal capitalization rate of 9.0% is selected, and is considered justifiable because the property will be substantially improved following the PIP. Using a 9.0% terminal cap rate the value increases by 9.1% to \$8,600,000 and the terminal cap rate is now 100 basis points above the 8.0% going-in rate based on first year projected NOI and the buyer’s total investment, but 90 basis points below the buyer’s 9.9% going-in rate based on the purchase price of the property “As Is”.

## VALUATION SCENARIOS – IMPACT OF TERMINAL CAP RATE

Valuation Input			
Loan/Value	65%	65%	
Amortization	25	25	
Term	10	10	
Interest Rate	5.50%	5.50%	
<b>Terminal Cap Rate</b>	<b>11.00%</b>	<b>9.00%</b>	200 bps
Transaction Costs	3.0%	3.0%	
Equity Yield	19.0%	19.0%	
Valuation Output			% Differential
All In Value Before Cap Ex	9,700,000	10,400,000	7.2%
All In Value Per Room	115,000	126,000	
As Is Value After Cap Ex	7,700,000	8,400,000	9.1%
As Is Value per Room	92,000	102,000	
<b>Reversionary Sales Price</b>	<b>11,400,000</b>	<b>13,900,000</b>	<b>21.9%</b>
Unlevered Discount Rate	11.2%	11.5%	30 bps
Overall Rate (All In TTM NOI)	8.3%	7.8%	50 bps
Overall Rate (All In Year 1 NO)	8.6%	8.0%	60 bps
Overall Rate (As Is-TTM NOI)	10.5%	9.6%	90 bps
Overall Rate (As Is-Year 1 NOI)	10.8%	9.9%	90 bps

These calculations can be iterated to provide guidance on the most appropriate exit cap rate. If the current buyer's purchase price equates to a 9.9% cap rate based on first year projected NOI of 9.9%, then is it reasonable to assume that the new owner will be able to sell the property at a 9.0% exit cap in ten years when the asset will be 26 years old with five years left on the franchise agreement? It is clear in this instance that the more conservative scenario using an 11% terminal cap rate provides a more realistic view of the property's future value.

### Conclusion

As the U.S. hotel stock ages, the need for capital improvements will continue to rise. Capitalization rates derived from sales transactions do not overtly address the impact of capital improvements upon the purchase price or return expectations of the buyer. A realistic assessment of capital improvement costs at the time of the initial investment, and upon exiting the investment in the future, can provide an educated basis for selecting appropriate going-in and exit capitalization rates and results in a more reasoned and supportable current valuation.



## About HVS

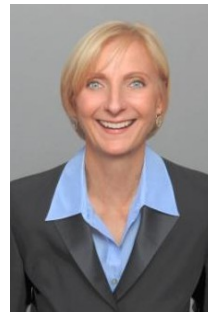
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## About the Author



**Suzanne R. Mellen** is the Senior Managing Director of the San Francisco, Los Angeles and Las Vegas offices of HVS, heading the Consulting & Valuation and Gaming Services divisions. She has been evaluating hotels and associated real estate for 35 years, has authored numerous

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