Hotel Capitalization Rates on the Rise

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Suzanne R. Mellen, CRE, MAI, FRICS

Managing Director, HVS San Francisco & HVS Las Vegas

HVS San Francisco
116 New Montgomery Street
Suite 620
San Francisco, CA 94105 USA
Tel: +1 415 896-0868
Fax: +1 415 896-0516

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With limited sales transactions and investment and refinancing activity, hotel capitalization rates and values are challenging to gauge in today's marketplace. Yet, the need to know where rates of return and values lie remains an important question for hotel investors, lenders and assessors. This article updates hotel capitalization and discount data that was presented in previous articles on hotel capitalization rates (see: *Allure of Hotel Investment Expected to Moderate Rise in Capitalization Rates as Rebound Takes Hold,* January 2005, and *Hotel Capitalization Rates Bottom Out*, January 2007, by Suzanne Mellen, in the Library at www.hvs.com) and provides guidance on hotel capitalization and discount rates used in hotel valuation. Based on current trends discussed in this article, overall capitalization and discount rates have increased roundly 100 to 250 basis points (depending upon ones definition of these terms) from their recent historic lows. Sales data, investor surveys and the cost of capital are investigated in this article to support this conclusion.

Sales Data

Hotel capitalization rates are once again on the rise after reaching historic lows over the 2004 to early 2007 period. Since 1988 HVS International has been tracking overall "going-in" capitalization rates, free and clear discount rates and equity internal rates of return for hotels that sell at the time of our appraisal. The following chart sets forth the trend in these rates of return. Note that the 2008 data reflects sales through June – no more recent sales data was available to reflect the change in market conditions since the events of the fall of 2008, when the financial markets paralyzed investor activity.

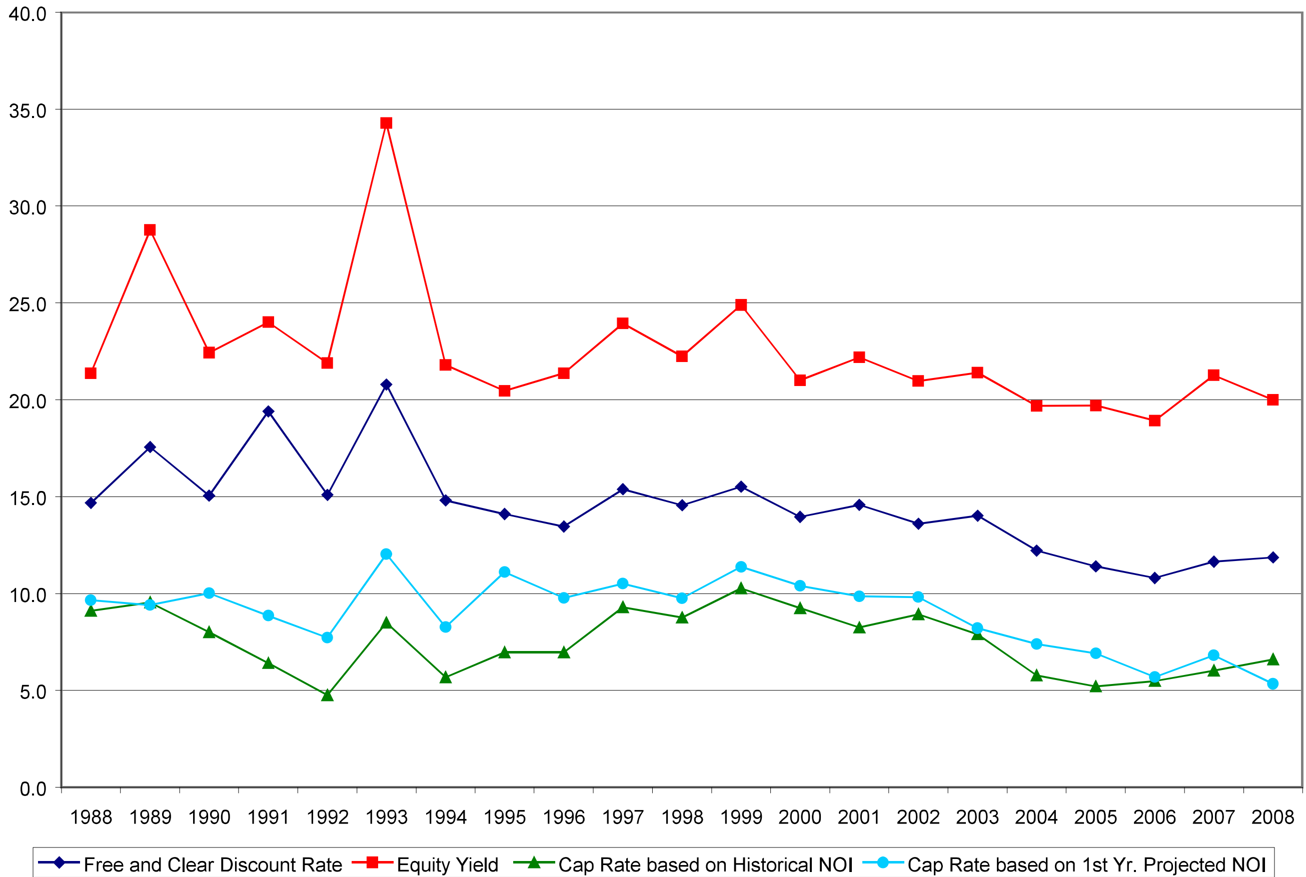
Derived and Projected Capitalization and Discount Rates – Select Set of Full Service Hotels

	Cap Rate based on Historical NOI	Cap Rate based on 1st Yr. Projected NOI	Free and Clear Discount Rate	Equity Yield
2008	6.6 %	5.3 %	11.9 %	20.0 %
2007	6.0	6.8	11.6	21.3
2006	5.5	5.7	10.8	18.9
2005	5.2	6.9	11.4	19.7
2004	5.8	7.4	12.2	19.7
2003	7.9	8.2	14.0	21.4
2002	8.9	9.8	13.6	21.0
2001	8.2	9.8	14.6	22.2
2000	9.2	10.4	14.0	21.0
1999	10.3	11.4	15.5	24.9
1998	8.8	9.7	14.5	22.2
1997	9.3	10.5	15.4	23.9
1996	7.0	9.8	13.5	21.4
1995	7.0	11.1	14.1	20.5
1994	5.7	8.3	14.8	21.8
1993	8.5	12.0	20.8	34.3
1992	4.8	7.7	15.1	21.9
1991	6.4	8.9	19.4	24.0
1990	8.0	10.0	15.1	22.4
1989	9.5	9.4	17.6	28.8
1988	9.1	9.7	14.7	21.4

Source: HVS - San Francisco

The data reflect the record low levels of capitalization and discount rates that were in evidence from 2004 through 2007, and have been graphed in the following chart.

Derived and Projected Capitalization and Discount Rates – Select Set of Full Service Hotels



Source: HVS – San Francisco

The lowest line reflects capitalization rates derived from sales based on trailing twelve or the most recent calendar year NOI, while the next lowest line reflects capitalization rates derived from sales based on 1st year projected net income. Given the perennial optimism of hotel investors, projected net income is generally higher than historical net income. These two rates align or cross over (i.e. projected net income is below historical net income) when the market is wary of flat or declining net income, as was the case when the market was bracing itself for a recession in 1989 or when external factors make the possibility of a rebound in NOI uncertain, as was the case in 2003. For the last four years capitalization rates derived from historical net income have been 100 to 200 basis points below the rate derived from first year projected net income, reflecting the anticipation of improved net income levels. However, we are now seeing a sharp reversal of this typical trend, with forward looking cap rates falling below historical cap rates due to the projected decline in hotel net income expected in 2009. Capitalization rates derived from historical net income hit their historic low in 2005, at 5.2%. Just how much cap rates will rise in today's uncertain environment is difficult to say, but many forces are at play that will likely result in a significant rise in cap rates derived on historical net income (2008 NOI divided by sales price or value) over the next year, while cap rates

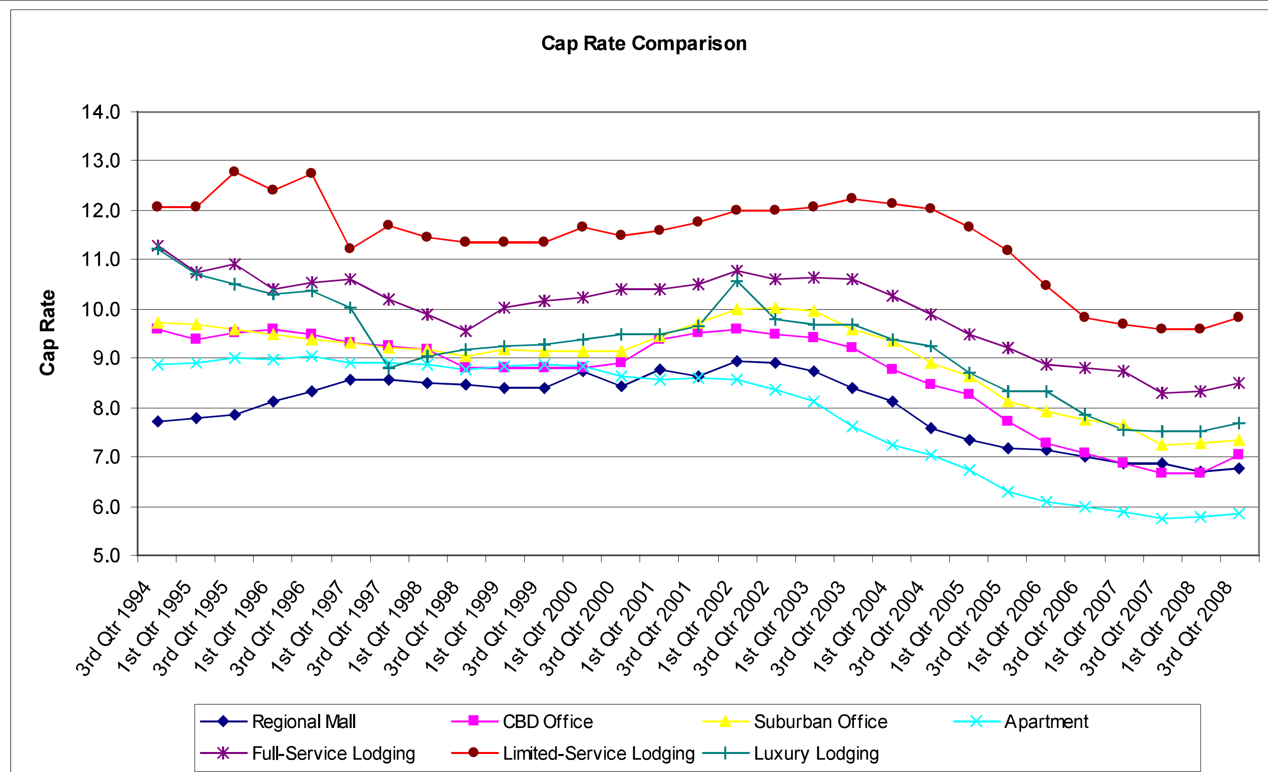
derived on projected first year net income (2009 NOI divided by sales price or value) will decline, due to depressed earnings.

The challenge is the absence of sales transactions to validate the direction and level of both capitalization rates, as well as discount rates employed in discounted cash flow analyses. The need to employ a ten year discounted cash flow analysis in hotel valuations is all the more important now, with near term income levels declining and investors betting on a future recovery. Discount rates, defined as the internal rate of return equating a ten year projection of net income to a value or sales price, are also on the rise, as evidenced by the second line from the top. While investors indicate that their equity yield requirements have risen due to the risks they face, there has not yet been any evidence of a significant change in equity returns, as reflected by the top line on the graph. It should be kept in mind that these yields are a product of the type of full service assets being sold and appraised at a given point in time, and thus can be skewed upward or downward, depending upon the characteristics of the hotels that form the basis for the rate calculation.

Investor Surveys

In addition to derived rates of return from sales transactions, investor surveys can also provide guidance on current capitalization and discount rates. The challenge with investor surveys is that even though they are based on investor forward looking return requirements, they tend to lag the market, particularly during abrupt changes in market conditions, as we have recently witnessed. The following chart sets forth Korpacz survey data for the 1st and 3rd quarters of each year since the 3rd quarter of 1994. Data are set forth for three hotel

Real Estate Investment Capitalization Rate Comparison – Korpacz Real Estate Investor Survey Data

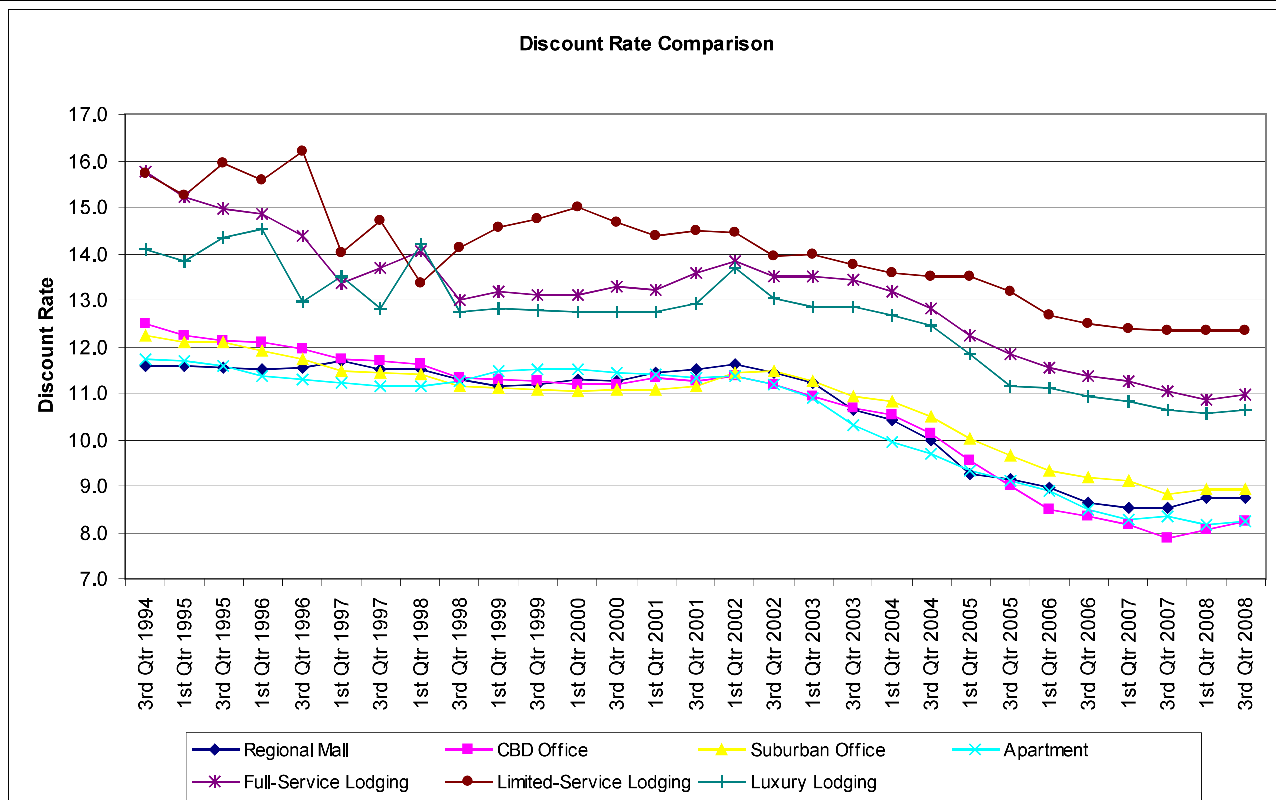


Source: PWC Korpacz Survey / HVS – San Francisco

categories (limited service, full service and luxury/ upper upscale, as well as four other real estate investment categories, CBD office, suburban office, retail mall and apartments. Capitalization rates declined a full 200 basis points from the 1st quarter of 2003 to the 3rd quarter of 2006, and reached their nadir in the 3rd quarter of 2007. A slight uptick in capitalization rates is evidenced in the 3rd quarter of 2008, but it is clear that the data does not reflect the increase in investor return requirements over the past four months. Note that hotel investment return requirements still exceed those of other real estate. These higher yields attracted many new hotel investors to the market during this most recent cycle. It will be interesting to see if hotels retain their appeal after the current economic downturn. The traditional spread between luxury, full service and limited service hotel capitalization rates of return remains, though we may begin to see some more differentiation in future rates of return, depending upon how each hotel classification performs through the current down cycle.

Discount rates have followed the same trend as capitalization rates, declining over 200 basis points from the first quarter of 2003 to the 3rd quarter of 2006, and reaching their nadir in the 3rd quarter of 2007. No increase in yield requirements was yet in evidence as of the 3rd quarter of 2008, surprising, given the change in the investment environment that commenced in the summer of 2007. Future survey data is likely to reflect an increase in both capitalization and discount rates now that the market has been shocked into a distressed state by the events in the financial markets during the fall of 2008.

Real Estate Investment Discount Rates – Korpacz Real Estate Investor Survey Data



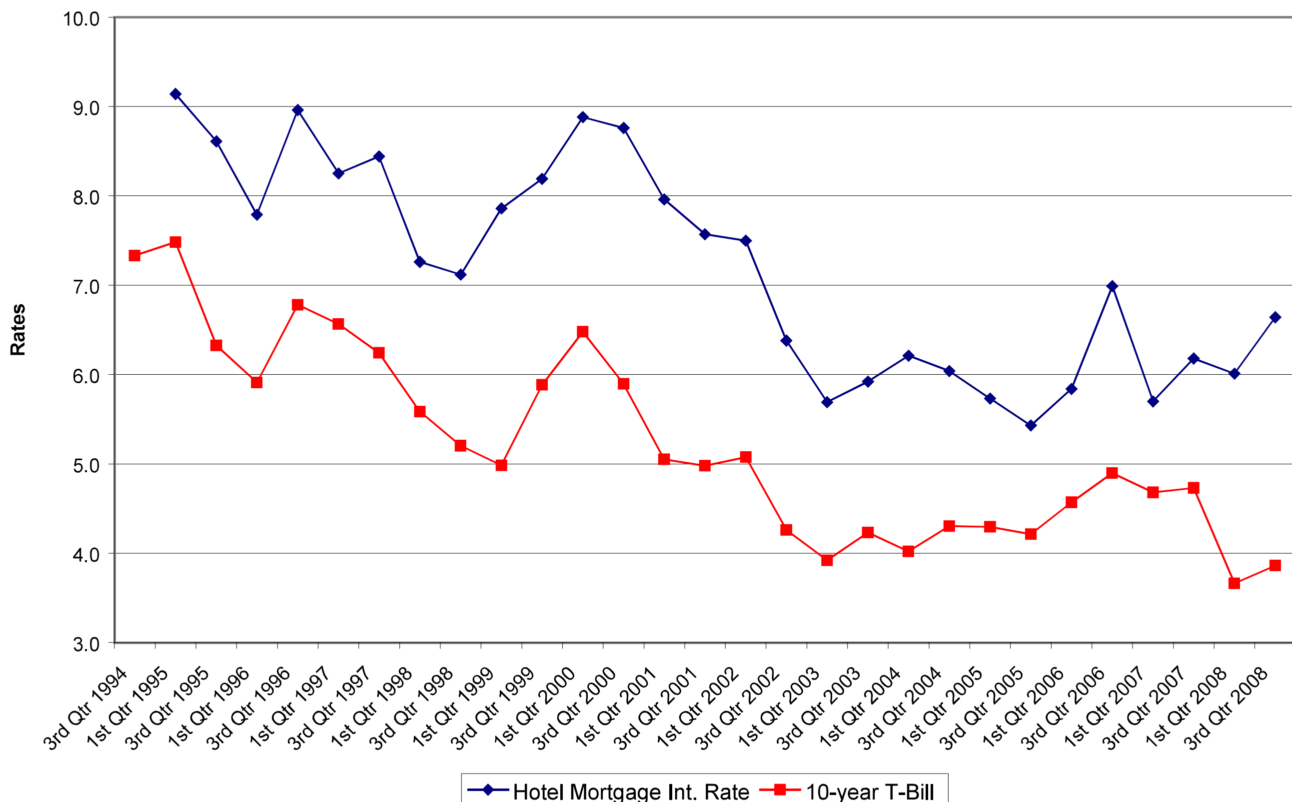
Source: PWC Korpacz Survey - HVS – San Francisco

Cost of Capital

In the absence of sales transactions and recent survey data that reflect current trends, how does one develop appropriate capitalization and discount rates to value hotels? Looking at the current actions and yield requirements of the debt and equity components that make up a hotel's capitalization can provide guidance on this issue.

A major component of a hotel's capitalization rate is the cost of debt, and it has been on the rise from its recent historic lows. The following chart sets forth historical yields on 10-year Treasury notes as compared with hotel mortgage interest rates of loans made by insurance companies which report to the American Council of Life Insurance Companies. As is evidenced by the graph, the spreads between the 10-year Treasuries and hotel mortgage interest rates derived from the ACLI data tightened considerable during the 2003 to 2007 period, averaging 159 basis points from the 1st quarter of 2003 to the 3rd quarter 2007, providing the low cost of debt capital that fueled the recent vibrant hotel investment market. The spread between these two indices reached an historic high of 291 basis points in the 1st quarter of 2001, as the economy was entering recession, and an historic low of 102 basis points in the 1st quarter of 2007, the last hurrah of the most recent investment boom. In just three quarters, the spread has once again dramatically increased to 278 basis points in the 3rd quarter of 2008, no surprise given

Ten Year Treasury Note Yields Compared with Hotel Mortgage Interest Rates



Source: ACLI / HVS – San Francisco

the dramatic change in market conditions over this period of time.

It is clearly challenging to discern current hotel mortgage interest rates, given the lack of lender activity. HVS runs a regression analysis that based on the correlation between hotel mortgage loans made by life insurance companies and the Corporate A bond yield. This regression analysis is currently concluding an interest rate of 7.15% for the highest quality loans, and of course are LTV dependent. The lenders that are quoting rates indicate a spread of 450 to 600 basis points over the yield on 10-year treasuries, which was 2.48 for the week ending January 9, 2009, indicating an interest rate range of 7.0% to 8.5%. The spreads are well above the 300 to 400 basis point norm during the 1990s, and are dramatically higher than the 100 to 150 basis points over the T-bill yield during the recent cycle when inexpensive debt was flowing freely.

Perhaps the biggest change in the current investment environment is the challenge in obtaining any financing at all, or if one is able to obtain financing, the loan-to-value ratio is well below traditional levels. Quotes of 40% to 60% LTV are common today, in contrast to LTVs of 75% to as high as 85% in the most recent up cycle.

Based on our informal survey of equity investors, equity rates of return have reportedly increased as well due to the uncertainty of projected net income and the current financing challenges. However, given the reduced leverage, and the lack of yield on almost every alternative investment at the moment, it is unlikely that equity yields have increased significantly if one assumes that leverage will remain low throughout a typical holding period.

Given these changes in the cost and availability of debt and equity, one can calculate current capitalization and discount rates through a mortgage-equity, discounted cash flow model.[1] The following chart sets forth valuation inputs and outputs into a model under two scenarios for a sample upscale hotel. The first column sets forth the value of the hotel based on a ten year, mortgage equity discounted cash flow analysis employing a 6.5% interest rate and 75% loan-to-value ratio, investment parameters that were prevalent as of mid-2007, the end of the peak of the market. The second column reflects how the same hotel might be valued at the beginning of 2009, assuming a 7.5% interest rate and 50% loan-to-value ratio. An equity internal rate of return of 19% was utilized in the mid-2007 scenario, rising to a 20% IRR in the "current available rates" scenario, in early 2009. The terminal capitalization rate is also assumed to increase by 100 basis points from the mid-2007 to the early 2009 period, reflecting the greater risk associated with projecting future values. Note that the first value is based on projected stabilized cash flows, while the second value is based on a forecast that projects declines of 6.5% and 15% in RevPAR and net operating income, respectively, for 2009. The result is a value decline over the past 18 months of 25%. The capitalization rate based on historical NOI increases by 320 basis points, while the discount rate (free and clear) and implied capitalization rate (discount rate less inflation rate

Investment Parameters and Change in Values From Peak

	Investment Parameters and Resultant Values		
Valuation Inputs:	Recent Peak Value Mid-2007	Current Available Rates	% Change Recent Peak to Current Available
Interest Rate	6.5%	7.5%	
Loan-to-Value	75%	50%	
Eq. IRR	19.0%	20.0%	
Terminal Cap Rate	9.0%	10.0%	
Valuation Outputs:			
Value Per Room	$160,000	$121,000	24.4%
Discount Rate	10.6%	14.9%	
Implied Cap Rate	7.6%	11.9%	
Derived Cap Rate:			
Historical NOI	7.9%	11.2%	
1st Year Proj. NOI	8.3%	9.0%	

Source: HVS – San Francisco

[1] Note that a weighted cost of capital is not mathematically correct when weighting yields over a multi-year holding period, and thus a linear algebraic formula and ten year discounted cash flow analysis is employed to model the resultant capitalization and discount rates.

of 3%) rise by 430 basis points, dramatic increases that would indicate returns at distressed pricing levels.

Based on this analysis, we can understand why there are so few hotel transactions today. Buyers want to purchase distressed assets 25% below recent peak values, but sellers are averse to letting their hotels go at such distressed pricing. Given the definition of market value, which presumes a "willing buyer and willing seller", it would seem that a conclusion of value based on the current debt and equity investment parameters may not accurately reflect market value today. Our survey of hotel investors indicates that purchasers who are actively pursuing hotels in today's market are aware that they will likely have to pay all cash for the asset or obtain mortgage financing based at a very low LTV, with the anticipation of refinancing at some point in the future when the debt market normalizes.

To reflect this reality, a refinancing scenario was modeled for the sample hotel, with the following results. It was assumed that the hotel would be able to recover its occupancy and average rate by the 4th projection year, and that the hotel would be refinanced at the end of year four, based on a value derived at that time. A 50% LTV is assumed for the initial mortgage at the time of purchase, assuming the valuation parameters previously employed under the distressed rate scenario. Two refinancing scenarios are performed to illustrate the impact of interest rates and the level of leverage upon refinancing. The first refinancing scenario assumes a 70% LTV and a 7.5% interest rate, while the second refinancing scenario assumes a 75% LTV at a 7.0% interest rate. The resultant values based on these valuation inputs equates to $133,000 per room or a 16.9% decline from the mid-2007 peak value for the first scenario (70% LTV) and $140,000 per room or a 12.5% decline for the second scenario (75% LTV). Note that the LTV of the initial mortgage now declines to 43% to 45%, because of the increase in

Change in Values from Peak based on Current Available Rates and Refinancing Scenario

	Investment Parameters and Resultant Values						
Valuation Inputs:	**Recent Peak Value Mid-2007**	**Current Available Rates**	**% Change Recent Peak to Current Available**	**Assumed Refinancing @ 70% LTV 7.5%**	**% Change Peak to Refinancing @ 70%**	**Assumed Refinancing @ 75% LTV 7.0%**	**% Change Peak to Refinancing @ 75%**
Interest Rate	6.5%	7.5%		7.5%		7.0%	
Loan-to-Value	75%	50%		45% / 70%		43% / 75%	
Eq. IRR	19.0%	20.0%		19.0%		19.0%	
Terminal Cap Rate	9.0%	10.0%		10.0%		10.0%	
Valuation Outputs:							
Value Per Room	$160,000	$121,000	-24.4%	$133,000	**-16.9%**	$140,000	**-12.5%**
Discount Rate	10.6%	14.9%	430 bps	**13.0%**	240 bps	**12.5%**	190 bps
Implied Cap Rate	7.6%	11.9%	430 bps	**10.0%**	240 bps	**9.5%**	190 bps
Derived Cap Rate:							
Historical NOI	7.9%	11.2%	330 bps	**9.5%**	160 bps	**9.0%**	110 bps
1st Year Proj. NOI	8.3%	9.0%	70 bps	**8.2%**	-10 bps	**7.8%**	-50 bps

Source: HVS – San Francisco

value due to the assumed future refinancing.

The resultant derived capitalization rates, based on historical NOI, increase roundly 110 to 160 basis points from their 2007 historic lows, while the discount rate and implied capitalization rates rise by 190 to 240 basis points. Forward looking cap rates actually decline, because of depressed earnings in 2009. The capitalization and discount rates developed through the refinancing scenarios more accurately reflect the expectations of hotel investors, and thus better reflect the marketplace and concept of market value. Investors, appraisers and lenders we queried supported the concept of building in a refinancing scenario into a discounted cash flow analysis to more accurately reflect current rates of return.

Note that this analysis was performed for a sample hotel, and that the concluded capitalization and discount rates are dependent upon the timing of the cash flows, and thus these rates of return should not be applied to other hotel assets without taking into consideration all the individual characteristics of the asset and the timing and depth of the projected net income recovery. For hotels that evidence significant obsolescence or that are aging and in markets with low barriers to entry, assuming a recovery to stabilization and refinancing at that time may be inappropriate. Alternatively, high quality, irreplaceable assets may warrant consideration of barriers to entry and other factors when concluding appropriate rates for valuation.

Conclusion

With limited recent sales and survey data upon which to rely, capitalization and discount rates can be developed based on the current cost of capital. Given the difficulty in obtaining financing today and the low leverage that is available, an assumed future refinancing in a ten year discounted cash flow analysis, based upon improved, stabilized net income, provides the best approach to discern the market value that would result from negotiations between a willing buyer and willing seller. Based on the analysis set forth in this article, we conclude that required rates of return for hotels have risen from their nadir in mid-2007. Whether these rates will stabilize or continue to rise will depend upon the future cost and availability of financing, LTV ratios, and whether owners can weather this downturn and hold onto their assets, or if significant numbers of owners will be unwillingly forced to sell at distressed prices. Only time will tell.

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About the Author

Suzanne R. Mellen is the Managing Director of the San Francisco office of HVS, heading the Consulting & Valuation and Gaming Services divisions. She has been evaluating hotels and associated real estate for 31 years, has authored numerous articles, and is a frequent lecturer and expert witness on the valuation of hotels and related issues. Ms. Mellen has a BS degree in Hotel Administration from Cornell University and holds the following designations: MAI (Appraisal Institute), CRE (Counselor of Real Estate), ISHC (International Society of Hospitality Consultants) and FRICS (Fellow of the Royal Institution of Chartered Surveyors).

Ms. Mellen can be contacted at:
HVS — San Francisco
116 New Montgomery Street
Suite 620
San Francisco, CA 94105
+1 (415) 268-0351 direct
+1 (415) 896-0516 fax
smellen@hvs.com
http://www.hvs.com

About HVS:

Since 1980, HVS has provided hospitality services to more than 10,000 hotels throughout the world. Principals and associates of the firm have wri◎en textbooks and thousands of articles regarding all aspects of the hospitality industry, and literally "wrote the book" on how hotels should be valued.