# Hotel Values in Transition—An Appraisal Technique for These Uncertain Times 

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Hotel Values in Transition-
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How does one value a hotel in a market that is in a state of transition? The income approach is generally relied upon by hotel investors and lenders in determining value, and still offers the strongest basis for value determination. However, application of the income approach is challenging during a time when there are few transactions and financing is difficult to obtain over the short term. This article discusses how a discounted cash flow analysis, which builds in a property refinancing in the future when the credit markets have returned to some normalcy and the hotel's net income has recovered, is the most appropriate way to value hotels in the current market environment.

Earnings for most hotels will be depressed in 2009, and anyone pursuing the acquisition of a hotel will anticipate a recovery in earnings over the following few years. Thus, capitalizing either historical or first year projected NOI by an overall capitalization rate will not provide an accurate reflection of value. Through careful assessment of the outlook for a hotel's earnings over the near term, one can develop a forecast of income and expense that can serve as a basis for a ten year discounted cash flow analysis.
Determining an appropriate discount rate to employ in the analysis is one of the most critical steps in a discounted cash flow analysis. An upscale, 476 room hotel, located in a wellbalanced market is used as a example to illustrate how an appropriate discount rate may be determined. This hotel is expected to experience a moderate downturn during the current economic recession. A projection of income and expense has been prepared setting forth the future anticipated earnings of the property, up through a stabilized year, and one year beyond. The hotel is not expected to stabilize until the fourth forecast year due to the downturn that will negatively impact earnings in 2009, with a recovery thereafter. This market is still holding relatively well, with no new additions to supply, and thus a $6.5 \%$ decline in RevPAR and $12 \%$ decline in net operating income (NOI) is projected for the first forecast year.
The projected net income is capitalized into an estimate of market value via a 10 -year, mortgage-equity discounted cash flow analysis utilizing the investment parameters that reflect the cost of capital currently available in the market. Consideration of the debt and equity return requirements is considered the most appropriate way to value an income producing property, particularly in today's environment when increased mortgage interest rates and lower loan-tovalue ratios have such a major impact on capitalization and discount rates. For comparative purposes, we first apply the return requirements that were in evidence during the recent peak of the market (2006/2007), when lenders were aggressively competing for loans. A $75 \%$ loan-to-value is assumed, at a $6.5 \%$ interest rate and 30 -year amortization. A terminal capitalization rate of $8.5 \%$ is employed, and an $18 \%$ equity yield is considered appropriate for the equity
component. The resultant value conclusion is $\$ 171,000$ a room, as set forth below.

## Value Based on Investment Parameters Available at the Recent Market Peak

|  | Valuation Input | Valuation Output |  |
| :--- | :---: | :--- | ---: |
| Stabilized Year | 4 | Value | $\$ 81,616,795$ |
| Inflation | $3 \%$ | (Say) | $81,600,000$ |
| LoanNalue | $\mathbf{7 5 \%}$ | Value Per Room | $\mathbf{\$ 1 7 1 , 4 2 9}$ |
| Amortization | $\mathbf{3 0}$ Years | Overall Discount Rate | $\mathbf{1 0 . 5 \%}$ |
| Term | $\mathbf{1 0}$ Years | Cap Rate - Historical NOI | $7.9 \%$ |
| Interest Rate | $\mathbf{6 . 5 \%}$ | Cap Rate - 1st Yr. NOI | $6.3 \%$ |
| Terminal Cap Rate | $\mathbf{8 . 5 \%}$ |  |  |
| Transaction Costs | $2.0 \%$ |  |  |
| Equity Yield | $\mathbf{1 8 . 0 \%}$ |  |  |

Applying the debt and equity return requirements that were in evidence in 2006 and early 2007 are clearly not appropriate to use in early 2009, and will result in overvaluing this hotel. But if an appraiser applies a "free and clear" discount rate to the projected cash flow, without consideration of the current terms of debt and equity capital that is exactly what will the outcome will be. Looking to investor surveys for guidance on discount and capitalization rates, and applying an overall discount rate of roundly $10.5 \%$ will result in an overvaluation.
Similarly, a case can be made that basing a value on the return requirements currently available in the marketplace will only take into account the immediate investment parameters and will result in undervaluing the hotel. In this second scenario a $50 \%$ loan-to-value ratio is assumed, which provides a 2.0 debt service coverage in the first projection year. Reflecting the significantly higher spreads to treasuries, an interest rate of $7.5 \%$ is assumed, with a more conservative 25 -year amortization. This loan-to-value and debt coverage ratio reflects significantly more conservative lending terms than in the recent past. A somewhat higher equity yield of $20 \%$ is applied, reflecting greater equity yield requirements, even though the leverage and risk of paying debt service is reduced. The free and clear discount rate that equates the concluded value to the projected cash flow equates to $14.9 \%$, as set forth below.

## Forecast of Income and Expense



[^0]|  | Valuation Input | Valuation Output |  |
| :---: | :---: | :---: | :---: |
| Stabilized Year | 4 | Value | \$60,853,136 |
| Inflation | 3\% | (Say) | \$60,900,000 |
| Loan/Value | 50\% | Value per Room | \$127,941 |
| Amortization | 25 Years | Overall Discount Rate | 14.3\% |
| Term | 10 Years | Cap Rate - Historical NOI | 10.6\% |
| Interest Rate | 7.5\% | Cap Rate - 1st Yr. NOI | 8.5\% |
| Terminal Cap Rate | 9.5\% |  |  |
| Transaction Costs | 2.0\% |  |  |
| Equity Yield | 19.0\% |  |  |

The range of value between these two scenarios, $\$ 128,000$ to $\$ 171,000$ per room, is significant. What discount rate is truly appropriate: $10.5 \%, 14.3 \%$ or something in between? When we sit back and reflect on the current reality of
hotel transactions and buyers expectations, it would seem appropriate to more accurately reflect the steps that a hotel investor will take during the ownership period to maximize value. With near term depressed earnings, and the reality of making a purchase with all cash or a low loan-to-value ratio, purchasers will look to refinance the hotel once its earnings have recovered and the credit markets have returned to some semblance of normalcy. Let's build a refinancing into our discounted cash flow analysis to assess its impact on the applicable discount rate to employ in this valuation.
Assume that the purchaser enters the investment based on the currently available debt terms ( $50 \%$ LTV) outlined above. The annual mortgage payment based on the value

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conclusion is calculated as the debt service constant of .088679 times the mortgage amount of $50 \% \times \$ 60,900,000$, or $\$ 2,698,000$ per year. The forecast of net income to equity is calculated as the annual net income available for debt service less the annual debt service.

| Calculation of Net Income to Equity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Income <br> Available for <br> Debt Service | Total Annual <br> Debt Service |  | Net Income <br> to Equity |  |
| Year |  |  |  |  |  |
| 2009 | $\$$ | $5,173,000$ | $-\$ 2,698,000$ | $=$ | $\$$ |
| 2010 | $5,594,000$ | - | $2,698,000$ | $=$ | $2,875,000$ |
| 2011 | $6,332,000$ | - | $2,698,000$ | $=$ | $3,634,000$ |
| 2012 | $7,486,000$ | - | $2,698,000$ | $=$ | $4,788,000$ |
| 2013 | $7,711,000$ | - | $2,698,000$ | $=$ | $5,013,000$ |
| 2014 | $7,942,000$ | - | $2,698,000$ | $=$ | $5,244,000$ |
| 2015 | $8,180,000$ | - | $2,698,000$ | $=$ | $5,482,000$ |
| 2016 | $8,425,000$ | - | $2,698,000$ | $=$ | $5,727,000$ |
| 2017 | $8,679,000$ | - | $2,698,000$ | $=$ | $5,981,000$ |
| 2018 | $8,939,000$ | - | $2,698,000$ | $=$ | $6,241,000$ |

The reversion, or net sales proceeds to equity, at the end of the ten-year holding period is calculated by capitalizing the 11th years NOI by the terminal capitalization rate, reflecting how the next buyer would value the hotel upon acquisition based on forward looking cash flow at that time.

\section*{Calculation of Reversionary Sales Proceeds <br> | 11th Year's Net Income | $\$ 9,207,000$ |
| :--- | ---: |
| Capitalization Rate | $9.5 \%$ |
| Total Sales Proceeds | $\$ 96,916,000$ |
| $\quad$ Less: Transaction Costs @ 2.0\% | $1,938,000$ |
| Net Sales Proceeds | $\$ 94,978,000$ |
| $\quad$ Less: Outstanding Mortgage Balance | $24,255,000$ |
| Net Proceeds to Equity | $\$ 70,722,000$ |}

The conclusion of value is checked by verifying that the required internal rates of return to the debt and equity positions are indeed achieved. ${ }^{1}$
The value of the debt component of $\$ 30,427,000$ plus the value of the equity component of $\$ 30,428,000$ equals the total value of the property, or $\$ 60,855,000$, rounded to $\$ 60,900,000$. The discount rate that equates the pre-debt service cash flow to the concluded value is calculated to be $14.3 \%$, as set forth below. This rate reflects the blended cost

[^1]| Year |  | Net Income to Equity |  | ent Worth of \$1 ctor at 19.0\% |  |  | Discounted Cash Flow |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 | \$ | 2,475,000 | x | 0.840333 | = | \$ | 2,080,000 |
| 2010 |  | 2,896,000 | x | 0.706159 | = |  | 2,045,000 |
| 2011 |  | 3,634,000 | x | 0.593408 | = |  | 2,156,000 |
| 2012 |  | 4,788,000 | x | 0.498660 | = |  | 2,388,000 |
| 2013 |  | 5,013,000 | x | 0.419040 | = |  | 2,101,000 |
| 2014 |  | 5,244,000 | x | 0.352133 | = |  | 1,847,000 |
| 2015 |  | 5,482,000 | x | 0.295909 | = |  | 1,622,000 |
| 2016 |  | 5,727,000 | x | 0.248662 | = |  | 1,424,000 |
| $\begin{aligned} & 2017 \\ & 2018 \end{aligned}$ |  | 5,981,000 | x | 0.208959 | = |  | 1,250,000 |
|  |  | 76,963,000 * | x | 0.175595 | = |  | 13,514,000 |
| Value of Equity Component |  |  |  |  |  |  | 30,427,000 |
| * 10th year net income to equity of $\$ 6,241,000$ plus sales proceeds of $\$ 70,722,000$ |  |  |  |  |  |  |  |

Yield to the Lender Position - Current Investment Parameters

| Year | Total Annual <br> Debt Service | Present Worth of $\mathbf{\$ 1}$ <br> Factor at 7.5 \% |  | Discounted <br> Cash Flow |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2009 | $\$$ | $2,698,000$ | x | 0.930850 | $=$ | $\$$ |
| 2010 | $2,698,000$ | x | 0.866483 | $=$ | $2,511,000$ |  |
| 2011 | $2,698,000$ | x | 0.806566 | $=$ | $2,176,000$ |  |
| 2012 | $2,698,000$ | x | 0.750792 | $=$ | $2,026,000$ |  |
| 2013 | $2,698,000$ | x | 0.698875 | $=$ | $1,886,000$ |  |
| 2014 | $2,698,000$ | x | 0.650548 | $=$ | $1,755,000$ |  |
| 2015 | $2,698,000$ | x | 0.605563 | $=$ | $1,634,000$ |  |
| 2016 | $2,698,000$ | x | 0.563689 | $=$ | $1,521,000$ |  |
| 2017 | $2,698,000$ | x | 0.524710 | $=$ | $1,416,000$ |  |
| 2018 | $26,953,000$ | x | 0.488426 | $=$ | $13,165,000$ |  |
|  | Value of Mortgage Component |  |  |  |  | $30,428,000$ |

*10th year debt service of $\$ 2,698,000$ plus outstanding mortgage balance of \$24,255,000
of capital utilized in the valuation. ${ }^{2}$
As previously discussed, assuming that the hotel retains its initial mortgage made at a $50 \%$ loan-to-value throughout the ten-year holding period undervalues the asset. However, this yield may be appropriate over the near term, particularly if a buyer pays all cash for an asset, and faces the risk of financing over the next few years. A "free

2 Note that this weighted cost of capital cannot be accurately calculated by weighting each rate of return by its pro-rata contribution, as is done in the traditional "band-of-investment" utilized in calculating an overall capitalization rate to be applied to a single year's cash flow, because of the different yield curves of the debt and equity components over a multi-year holding period.

## Discounted Cash Flow Analysis - IRR Equating Pre-Debt Service Income to Value Conclusion

|  | Net Income <br> Available for <br> Debt Service | Present Worth of \$1 <br> Factor at 14.3\% | Discounted <br> Cash Flow |  |  |  |  |
| :---: | ---: | :---: | :---: | :--- | ---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| 2009 | $\$ 5,173,000$ | x | 0.874672 | $=$ | $\$ 4,525,000$ |  |  |
| 2010 | $5,594,000$ | x | 0.765050 | $=$ | $4,280,000$ |  |  |
| 2011 | $6,332,000$ | x | 0.669168 | $=$ | $4,237,000$ |  |  |
| 2012 | $7,486,000$ | x | 0.585302 | $=$ | $4,382,000$ |  |  |
| 2013 | $7,711,000$ | x | 0.511947 | $=$ | $3,948,000$ |  |  |
| 2014 | $7,942,000$ | x | 0.447785 | $=$ | $3,556,000$ |  |  |
| 2015 | $8,180,000$ | x | 0.391665 | $=$ | $3,204,000$ |  |  |
| 2016 | $8,425,000$ | x | 0.342578 | $=$ | $2,886,000$ |  |  |
| 2017 | $8,679,000$ | x | 0.299644 | $=$ | $2,601,000$ |  |  |
| 2018 | $103,916,000$ | x | 0.262090 | $=$ | $27,235,000$ |  |  |
|  |  |  | Total Property Value |  |  |  | $\$ 60,854,000$ |

*10th year net income of $\$ 8,939,000$ plus sales proceeds of $\$ 94,977,000$
and clear" yield of $14.3 \%$ is adequate to satisfy the equity yield requirements until debt becomes more available, but assuming that these terms remain in place throughout the holding period serves to lower the potential equity yield and undervalue the asset.
Hotel owners that plan to hold onto their assets more than a few years typically anticipate refinancing their property at a future point in time to enhance their return on equity. Hotel buyers are generally optimistic about future cash flow, and anticipate making improvements that will enhance cash flow. Once a property is stabilized they are in a position to obtain a mortgage based on a higher mortgage, and increase the positive leverage that enhances their yields. This practice is particularly relevant in today's market, when current earnings are depressed and when hotels must be purchased with all cash, through seller financing or at a low LTV. Let's see how the value of the subject hotel is impacted if a refinancing is assumed in the ten year discounted cash flow analysis.
The hotel is assumed to be refinanced at the end of the fourth projection year, based on the fifth year's, stabilized net income, projected forward from 2013 to formulate another 10 -year, mortgage-equity discounted cash flow analysis. The stabilized value is determined based on the following investment parameters, which reflects a more normalized LTV of $75 \%$, assuming that the credit markets recover and debt once again becomes available at terms that were prevalent in the 1980s and 1990s. The same $7.5 \%$ interest rate is employed due to the uncertainty of future interest rates at this time. The concluded stabilized value is $\$ 83,300,000$, based on the following inputs.

Value Based on Stabilized Value at End of $4^{\text {th }}$ Forecast Year or 2012

|  |  |  |  |
| :--- | :---: | :--- | ---: |
|  | Valuation Input | Valuation Output |  |
| Stabilized Year | 4 | Value | $\$ 83,305,783$ |
| Inflation | $3 \%$ | (Say) | $\$ 83,300,000$ |
| Loan/Nalue | $\mathbf{7 0 \%}$ | Value per Room | $\$ 175,000$ |
| Amortization | 25 Years | Overall Discount Rate | $\mathbf{1 1 . 9 \%}$ |
| Term | 10 Years | Cap Rate - Historical NOI | $9.0 \%$ |
| Interest Rate | $7.5 \%$ | Cap Rate - 1st Yr. NOI | $9.3 \%$ |
| Terminal Cap Rate | $\mathbf{9 . 5 \%}$ |  |  |
| Transaction Costs | $2.0 \%$ |  |  |
| Equity Yield | $\mathbf{1 9 . 0 \%}$ |  |  |

At a $70 \%$ LTV, the new mortgage is $\$ 58,314,000$, and the annual debt service based on a $7.5 \%$ interest rate and 25 year amortization equates to $\$ 5,171,000$ at a mortgage constant of .088679 . The annual net income to equity is set forth in the following chart.

## Net Income to Equity Based on Stabilized Value at End of 4 ${ }^{\text {th }}$ Forecast Year or 2012

|  | Net Income <br> Available for <br> Debt Service |  | Total Annual <br> Debt Service |  | Net Income <br> to Equity |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Year |  |  |  |  |  |  |
| 2013 | $\$$ | $7,711,000$ | - | $\$ 5,171,000$ | $=$ | $\$ 2,540,000$ |
| 2014 | $7,942,330$ | - | $5,171,000$ | $=$ | $2,771,330$ |  |
| 2015 | $8,180,600$ | - | $5,171,000$ | $=$ | $3,009,600$ |  |
| 2016 | $8,426,018$ | - | $5,171,000$ | $=$ | $3,255,018$ |  |
| 2017 | $8,678,798$ | - | $5,171,000$ | $=$ | $3,507,798$ |  |
| 2018 | $8,939,162$ | - | $5,171,000$ | $=$ | $3,768,162$ |  |
| 2019 | $9,207,337$ | - | $5,171,000$ | $=$ | $4,036,337$ |  |
| 2020 | $9,483,557$ | - | $5,171,000$ | $=$ | $4,312,557$ |  |
| 2021 | $9,768,064$ | - | $5,171,000$ | $=$ | $4,597,064$ |  |
| 2022 | $10,061,106$ | - | $5,171,000$ | $=$ | $4,890,106$ |  |

The proceeds to equity from the refinancing at the end of the fourth year or 2012 are calculated as follows. The outstanding balance of the initial mortgage is deducted from the new loan proceeds, as well as an assumed cost of refinancing equal to $1.5 \%$ of the new mortgage amount.

## Calculation of Net Refinancing Proceeds to Equity at End of Stabilized Year

| Stabilized Year Value | $\$ 83,300,000$ |
| :--- | ---: |
| New Loan to Value Ratio | $70.0 \%$ |
| New Mortgage | $\$ 58,314,000$ |
| Less: |  |
| Outstanding Balance of Initial Mortgage | $28,492,000$ |
| Refinancing Costs @ 1.5\% | 875,000 |
|  | $\mathbf{\$ 2 8 , 9 4 7 , 0 0 0}$ |

A sale of the asset is assumed at the end of the ten-year holding period. The net proceeds to equity upon sale are calculated by capitalizing the 11th year's net income into an estimate of value, and deducting the outstanding balance of the second mortgage and the cost of sales, as follows:

Calculation of Net Sales Proceeds to Equity at End of 10 Year Holding Period

| 11th Year's Net Income | $\$ 9,206,836$ |
| :--- | ---: |
| Capitalization Rate | $9.5 \%$ |
| Total Sales Proceeds | $\$ 96,914,000$ |
|  |  |
| Less: Outstanding Mortgage Balance | $52,293,000$ |
| $\quad$ Less: Transaction Costs @ 2.0\% | $1,938,000$ |
| Net Sales Proceeds (Say) | $\$ 42,683,000$ |
| *10th year net income of $\$ 8,939,000$ plus sales proceeds of $\$ 94,976,000$ |  |

The total cash flow to the equity position is calculated as the net income before debt service, less annual debt service, plus refinancing or sales proceeds, as follows:

| Year | Net Income Available for Debt Service |  | Total Annual Debt Service |  | Plus: <br> Refi / Sales <br> Proceeds |  | Total Cash Flow to Equity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 | \$5,173,000 | - | \$2,698,000 | + |  | = | \$2,475,000 |
| 2010 | 5,594,000 | - | 2,698,000 | + |  | = | 2,896,000 |
| 2011 | 6,332,000 | - | 2,698,000 | + |  | = | 3,634,000 |
| 2012 | 7,486,000 | - | 2,698,000 | + | 28,947,000 | = | 33,735,000 |
| 2013 | 7,711,000 | - | 5,171,000 | + |  | = | 2,540,000 |
| 2014 | 7,942,000 | - | 5,171,000 | + |  | = | 2,771,000 |
| 2015 | 8,180,000 | - | 5,171,000 | + |  | = | 3,009,000 |
| 2016 | 8,426,000 | - | 5,171,000 | $+$ |  | = | 3,255,000 |
| 2017 | 8,678,000 | - | 5,171,000 | + |  | = | 3,507,000 |
| 2018 | 8,939,000 | - | 5,171,000 | + | 42,683,000 | $=$ | 46,451,000 |

The net proceeds to equity over the complete ten-year holding period can now be discounted at an equity yield rate, concluding in the present value of the equity position. The value of the initial mortgage is added to the value of the equity to derive the value of the entire property as of the date of value.

The discount rate that equates the hotel's net income before debt service (free and clear cash flow) to the derived value is calculated, as follows:
The final value conclusion is $\$ 66,200,000$, is $8.7 \%$ higher than the value conclusion reached without assuming a refinancing, and the derived discount rate is $13.0 \%$, roundly 130 basis points lower than that in the $50 \%$ LTV scenario. Alternatively, the value is $18.8 \%$ lower than that derived utilizing investment parameters that were available at

the peak of the market, while the discount rate of $13.0 \%$ is 250 basis points higher than the discount rate employed during the recent peak investment market. If one assumes somewhat more favorable refinancing terms, such as a $75 \%$ LTV, $7.0 \%$ interest rate and a slightly lower equity yield requirement of $19 \%$, the overall discount rate declines to $12.1 \%$, and the value decline is reduced to $14.2 \%$.

## Value Derived by Application of Overall Discount Rate

| Year | Net Income | Discount Factor <br> $@$Discounted <br> Cash Flow |  |
| :---: | :---: | ---: | ---: |
|  |  |  |  |
| 2009 | $\$ 5,173,000$ | 0.88509 | $\$ 4,578,583$ |
| 2010 | $5,594,000$ | 0.78339 | $4,382,275$ |
| 2011 | $6,332,000$ | 0.69337 | $4,390,426$ |
| 2012 | $7,486,000$ | 0.61370 | $4,594,140$ |
| 2013 | $7,711,000$ | 0.54318 | $4,188,453$ |
| 2014 | $7,942,000$ | 0.48076 | $3,818,224$ |
| 2015 | $8,180,000$ | 0.42552 | $3,480,755$ |
| 2016 | $8,426,000$ | 0.37662 | $3,173,439$ |
| 2017 | $8,678,000$ | 0.33335 | $2,892,791$ |
| 2018 | $103,914,000$ * | 0.29504 | $30,659,142$ |
|  |  | Estimated Market Value | $\$ 66,158,229$ |
|  |  | (SAY) | $\$ 66,200,000$ |

Reversion Analysis


When all is said and done, the question that arises is, if a mortgage-equity discounted cash flow analysis is performed that does not overtly take into consideration a refinancing, what is the enhanced loan-to-value ratio that will equalize the mortgage-equity DCF value to the value based on a refinancing, assuming all other investment parameters remain the same. Through an iterative process we determined that a $62.5 \%$ loan-to-value ratio at a $7.5 \%$ interest rate and 25 year amortization will yield the same value as the refinancing scenario where an initial mortgage is assumed at a $50 \%$ LTV and a second mortgage is assumed at a $70 \%$ LTV. In essence, the $63 \%$ LTV represents a weighted LTV over the ten-year holding period. The valuation input and output is illustrated below.
Value Derived Assuming Refinancing at the End of the 4 ${ }^{\text {th }}$ Year at a 75\% LTV

|  | Valuation Parameters |  | Value |
| :--- | :---: | :--- | ---: |
| Stabilized Year | 4 | (Say) | $\$ 66,219,406$ |
| Inflation | $3.0 \%$ |  | $\$ 66,200,000$ |
| Loan/Value | $\mathbf{6 3 \%}$ |  | Value per Room |

The benefit of this analysis is that it illustrates that a higher loan-to-value ratio than is currently available, and thus a lower discount rate than what can be supported through a simple weighted cost of capital, can be employed when appraising a hotel in today's uncertain market.

Value Derived Assuming Refinancing at the End of the 4th Year at a 75\% LTV

|  | Valuation Input | Valuation Output |  |
| :---: | :---: | :---: | :---: |
| Stabilized Year | 4 | Value | \$70,000,000 |
| Inflation | 3.0\% | (Say) | \$70,000,000 |
| Loan/Value | 75.0\% | Value per Room | \$147,059 |
| Amortization | 25 Years | Overall Discount Rate | 12.1\% |
| Term | 10 Years | Cap Rate - Historical NOI | 8.6\% |
| Interest Rate | 7.0\% | Cap Rate-1st Yr. NOI | 7.4\% |
| Terminal Cap Rate | 10.0\% |  |  |
| Transaction Costs | 2.0\% |  |  |
| Equity Yield | 19.0\% |  |  |

## Conclusion

Deriving a current estimate of market value based upon the income approach requires developing a multi-year forecast that reflects a buyer's anticipation of a recovery in net operating income as well a refinancing in the future, when credit markets normalize. Assessing the appropriate
terms to use in this appraisal process requires a careful consideration of future potential net income based on a hotel's external market conditions and internal factors such as product competitiveness and revenue and cost structures. A carefully developed forecast of income and expense can be capitalized into an estimate of market value based upon current debt and equity return requirements, coupled with a forecast of a refinancing at greater leverage in the future. Undertaking this analysis reveals that discount rates have risen from their recent lows, depending upon the amount of net income recovery projected and the anticipated terms of refinancing. However, with the anticipation of a refinancing in the future, discount rates lower than what may appear applicable based on current rates of return are appropriate. These variables must be selected with thoughtful consideration of the type of lodging product being appraised, and the quality and durability of the projected net income over the mid and long term.

## About the Author



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http://www.hvs.com


[^0]:    *Departmental expenses are expressed as a percentage of departmental revenues.

[^1]:    1 The algebraic formula utilized to estimate market the value of a variable income stream is set forth in the Appraisal Institute's Appraisal Journal, April 1982.

