Adjusting Comparable Sales for Hotel Assessment Appeals

by Stephen Rushmore, MAI, and Thomas Arasi

While working on a property tax appraisal for a 500-room downtown Sheraton hotel, we were confronted with a comparable sale which, on the surface, did not support our opinion that the subject property was overassessed.

This article describes how this comparable was analyzed and adjusted to reflect the dissimilarities between it and the Sheraton, while at the same time conforming to the purpose of the appraisal, which was to value only the real property component. Although this case has been litigated and the appraisal is now in the public domain, we have elected to change the names of the subject property and comparable, as their identification does not serve to enhance the article.

A lodging facility is a unique form of real estate which consists of four components: land, improvements, going business, and personal property. When valuing hotels and motels for real property assessment purposes where only the market value of the land and improvements is at issue, the appraiser must break down or subdivide the overall property value into its individual components. An income capitalization approach which utilizes a stabilized statement of income and expense

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permits the appraiser to make market-supported deductions for income attributed to both the going business and personal property. The remaining residual income to the land and improvements can then be capitalized into a composite real property value. Because the income capitalization approach reflects the investment rationale of typical hotel buyers and sellers and allows for this type of component allocation, it has become the preferred procedure for valuing hotels and motels for assessment purposes.

VALUATION OF THE SHERATON

The Sheraton is a 500-room, four-year-old commercial and convention hotel, located in the decaying downtown area of a large midwestern city. It was constructed in anticipation of a resurgence in downtown building activity that never materialized. As a result, the subject property's occupancy has stabilized at 51%, with little hope for any growth in the near future. The following statement of income and expenses represents both the actual 1982 and stabilized operating results for the Sheraton.

The $2,122,948 stabilized net income (before property taxes) represents income attributed to the land, improvements, going business, and personal property. To isolate the real property component (land and improvements), deductions must be made for income attributed to the business and personal property.

VALUE OF THE BUSINESS (GOING CONCERN)

To estimate the business value of a lodging facility, it is our experience that by employing a professional management agent to take over day-to-day responsibilities (thereby allowing the owner to maintain only a passive interest), the business income has been taken (earned) by the management agent in the form of a management fee. Therefore, upon determining the cost of a management fee and deducting this amount from the stabilized statement of income and expense, the appraiser separates the value of the business from the value of the overall property.

Based on our experience in hiring managing agents and reviewing management contracts, we find that typical management fees range from 3- to 6% of total revenue. The managing agent for the Sheraton receives 3% of gross rooms revenue and other rental income and 3% of net food and beverage revenues. This combination equates to 1.9% of total revenue for the stabilized year of operation. Although this is considered to be below market for competent management, we elected to use the following to estimate business value.

Stabilized rooms revenue and rental income	$4,740,878
Net food and beverage revenues	1,169,323
Total	$5,910,201
Management fee percentage	.03
	$ 177,306
Stabilized income attributed to the business, say	$ 177,000

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Sheraton Hotel
Statement of Stabilized Income and Expense

Number of Rooms:	500	
Occupancy:	51.4%	
Average Rate:	$51.92	Percentage of Gross
Revenue		
Rooms	$4,632,758	50.5
Food	2,615,502	28.5
Beverage	1,414,078	15.4
Telephone	302,134	3.3
Rental and other income	206,019	2.3
Total	9,170,491	100.0
Departmental Expenses		
Rooms	1,175,103	25.4*
Food and beverage	2,860,257	71.0*
Telephone	301,727	99.9*
Total	4,337,087	47.3
Gross Operating Income	4,833,404	52.7
Undistributed Operating Expenses		
Administration and general	1,317,281	14.4
Management fee	177,306	1.9
Marketing	440,356	4.8
Energy costs	408,657	4.5
Property operation and maintenance	278,879	3.0
Total	2,622,479	28.6
House Profit	2,210,925	24.1
Fixed Expenses		
Insurance	87,977	1.0
Net Income	$2,122,948	23.1

*Expressed as a percentage of departmental revenue

VALUE OF THE PERSONAL PROPERTY (FURNITURE AND EQUIPMENT)

Two calculations are necessary to remove personal property value from the income flow: a return of personal property and a return on personal property.

The return of personal property is based on the fact that furniture, fixtures, and equipment (FF&E) has a relatively short useful life and must be replaced on an ongoing basis. The Internal Revenue Service's ''Depreciation Guidelines and Rules'' states that the life expectancy of hotel furnishings and equipment averages six to ten years. Although the replacement of FF&E is a capital expenditure and is not included on an accountant's income and expense statement, it does

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represent a reduction in cash flow and equity return, which has a negative effect on a property's market value. Hotel companies and appraisers account for the frequent replacement of FF&E by establishing an expense deduction known as a reserve for replacement. This fund reduces the hotel's cash flow in annual installments by an amount necessary to replace all existing FF&E with new FF&E over an assumed useful life.

The percentage of revenue procedure for calculating the return of personal property is well-supported and documented by numerous hotel management companies who specifically stipulate in their contracts that a reserve for replacement must be maintained and the formula is to be based on a percentage of total revenue. The industry norm for a reserve for replacement, expressed as a constant percentage, ranges from 2.5- to 3.5% of total revenue.

The total stabilized revenue for the subject property is $9,170,491 and the appropriate reserve for replacement, expressed as a percentage of revenue, has been estimated at 2.5%. The yearly reserve for replacement or return of personal property is calculated as follows:

Total Revenue		Percentage of Revenue		Yearly Return of Personal Property
$9,170,491	×	.025	=	$229,000

The return on personal property is the second calculation required to remove the income attributed to personal property from the total income stream. It is based on the premise that a component of a property is entitled to an annual return equal to the cost of the capital comprising that component. In this instance the component consists of all FF&E currently in use at the subject property.

The percentage rate of return on personal property should reflect the cost of capital commonly used to purchase FF&E. Chattel mortgages, which normally exceed interest rates on real estate mortgages by two to five points, demonstrate the perceived risk in personal property investments. Unfortunately, chattel financing is somewhat rare and interest rates for these loans are difficult to document. The current interest rates on hotel mortgages probably understate the required FF&E rate of return, but this readily available data establishes a firm benchmark that is difficult to dispute.

To estimate value of the personal property in place, we utilized the current personal property balance sheet amount of $3,594,000, or $7,188 per room (rounded), which is somewhat low for a property of this type, especially one with extensive meeting and banquet space.

To estimate the return on personal property, we considered the current (1982) interest rate for hotel-motel mortgages, which was 13.8%. Although it is our experience that interest rates for chattel mortgages are typically two to three points above these levels, for the purposes of this appraisal we assumed that a typical investor would demand an average return of 13.8% on personal property.

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Estimated Value of Personal Property		Return Percentage on Personal Property		Return on Personal Property
$3,594,000	×	13.8%	=	$496,000

The total income attributed to personal property is the combination of both the return of and on personal property.

Return of personal property	$229,000
Return on personal property	496,000
Income attributed to personal property	$725,000

To calculate the income attributed to the real estate for the hotel, land, and improvements, the income attributed to the business and the income attributed to the personal property is deducted from the stabilized net income before real estate taxes.

Stabilized net income before real estate taxes, say	$2,123,000
Less income attributed to:	
Business (going concern)	177,000
Personal property	725,000
Stabilized net income attributed to real estate (before real estate taxes)	$1,221,000

The income capitalization approach is based on the principle that the value of a property is indicated by the net return to the land and improvements, or what is known as the present worth of future benefits. The future benefit from income-producing properties such as hotels and motels is the net income before debt service and depreciation. Future benefits can then be converted into an indication of value by means of a capitalization process.

For this appraisal we utilized an overall capitalization rate. Generally, hotels are appraised by use of the mortgage/equity technique which recognizes that investors typically purchase real estate with a small quantity of equity cash (25- to 35%) and a larger amount of mortgage financing (65- to 75%). This technique gives weight to the amounts and terms of available mortgage financing and the rates of return required to attract sufficient equity capital.

Based on an analysis of the money market, we found that as of the date of this appraisal, mortgage funds were carrying interest rates of 13.8%. Using a 30-year amortization schedule, this interest rate equates to a .1402 debt service constant. Equity dollars at this time were requiring a 13% cash-on-cash return. The weighted cost of the debt and equity capital can be calculated through a band of investment.

Mortgage	.75	×	.1402	=	.1052
Equity	.25	×	.1300	=	.0325
Overall capitalization rate					.1377

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This capitalization rate is used for valuing stabilized net income after real estate taxes. The following adjustment is required to make the capitalization rate appropriate for stabilized net income before real estate taxes.

According to the Assessor's Office, the current equalization rate for the area is 24.6% and the tax rate is $92.60 per $1,000 of assessed valuation. The adjustment to the capitalization rate is calculated as follows:

Tax rate for subject on a per dollar of assessed value basis		.09260
Equalization rate	×	.24600
Increase in capitalization rate		.0228
Capitalization rate after real estate taxes	+	.1377
Indicated capitalization rate before real estate taxes		.1605

Application of the capitalization rate to the stabilized net income attributed to real estate (before real estate taxes) is accomplished as follows:

$$\frac{\$1,221,000}{.1605} = \$7,607,477$$

Indicated value of the Sheraton Hotel by income approach, say $7,600,000

This $7.6 million value of the Sheraton represents the market value of the real property components (land and improvements) and equates to a unit value of $15,200 per room.

ANALYSIS OF A COMPARABLE SALE

Although typical buyers and sellers of hotels and motels do not rely on the sales comparison approach, appraisers should be aware of and analyze any sales of similar properties within the market area.

While performing the fieldwork for the Sheraton appraisal, we discovered that a 300-room Holiday Inn situated in a nearby suburban area was sold in 1980, two years prior to the date of value, for a price of $14 million ($46,666 per room). Obviously, the difference in unit price between our value estimate for the Sheraton and the apparent price of the Holiday Inn had to be thoroughly explained in order to preserve the credibility of our appraisal.

Our firm had recently appraised the Holiday Inn and was thoroughly familiar with the motivations and expectations of the buyer and seller as well as the terms of the transaction. Without this knowledge, which is generally not available, this sale could not have been properly evaluated, and any influence it may have had in altering the value concluded from the income capitalization approach would not have been justified. This serves to illustrate the weakness in relying on the sales comparison approach when valuing lodging facilities.

An analysis of the Holiday Inn sale disclosed three factors that significantly influenced the price paid for this property: assumption of highly favorable financing, historic operating performance that was exceptional, and sales price that included both the going business and personal property.

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FAVORABLE FINANCING

Real estate transactions structured with below-market financing tend to overstate the actual price paid for a property. The following calculation shows the cash equivalency analysis made for the Holiday Inn sale.

Total consideration:	$14 million
Terms:	Assumption of first mortage with $8.75 million principal balance remaining, fully amortizing over the last 23 years, 9.5% interest, 10.5% debt service constant, for a yearly debt service payment of $978,500; plus a 1% of rooms revenue "kicker";
	Assumption of a second mortgage with $1.25 million principal balance remaining, 14.75% interest, very little amortization, with a principal balloon payment due in four years, $227,500 yearly debt service;
	$2 million purchase money mortgage, 20-year term, 11% interest, 12.39% debt service constant, $247,800 yearly debt service, first two years interest only with last 18 years fully amortizing;
	$2 million cash down payment, with $1 million down at closing and remaining $1 million 12 months after closing.

The buyer's assumption of the first mortgage at 9.5% interest was much more favorable than that prevailing in the hotel-motel mortgage market at the time of sale (1980), which was 15.58%.

Debt Service at 15.58% Interest

$8.75 million principal
23-year term, 276 monthly payments, fully amortizing 15.58% interest
$1,403,000 total yearly debt service

Debt Service at 9.5% Interest

$ 978,500 yearly debt service
$ 33,200 1% rooms revenue kicker (for year ending 7/80)
$1,011,700 total yearly debt service

At the time of sale, hotel-motel mortgage interest rates in the 15- to 16% range generally required rooms revenue kickers of at least 1- to 2%. We did not include this additional kicker in the above calculation of prevailing market financing, and, therefore, derived a more conservative (higher) value estimate.

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	$1,403,000
	− 1,011,700
Amount of additional debt service required under market conditions	$ 391,300
$391,300 × 6.1888* =	$2,421,677
Additional amount buyer would have spent to purchase given the favorable 1st mortgage, say	$ 2,400,000
Indicated sales price	$14,000,000
Less cash equivalent adjustment	− 2,400,000
	$11,600,000
The amount a typical buyer would have been willing to spend under prevailing mortgage market conditions to purchase the Holiday Inn (cash equivalent price)	$11.6 million

*Present worth of $1 per period factor, 15.58% interest, 23 years

The assumption of the second mortgage was at close to market terms so no cash equivalency analysis was necessary. A case could be made to discount the value of the $2 million purchase money mortgage at 11% interest and the $1 million cash payment made 12 months after closing, but these calculations were not ultimately necessary to illustrate that this comparable actually supported our value estimate for the Sheraton.

HISTORIC OPERATING PERFORMANCE

The Holiday Inn's suburban location adjacent to a regional airport and many high technology businesses and office parks was far superior to that of the downtown property. The Sheraton suffered from various types of external obsolescence as a result of its location. The operating results for the two properties differed significantly because of this adverse factor.

	Holiday Inn		Sheraton Hotel
	1979	1980	1982
Occupancy percentage	80	79	51.4
Average room rate	$34.88	$38.67	$51.92
Net income before property taxes and debt service	$1,662,000	$1,686,000	$2,123,000
Per room	$ 5,540	$ 5,620	$ 4,246

Since both properties appeared physically and functionally similar and were competently managed, we would attribute the difference in net income before property taxes and debt service to the external obsolescence of the Sheraton's inferior location.

Capitalizing the difference between the net incomes on a per-room basis would quantify the impact of this obsolescence and provide an appropriate adjustment to the Holiday Inn sale.

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The appropriate capitalization rate would be derived from the Holiday Inn's 1980 net income before property taxes and debt service by the cash equivalent price.

$$\frac{\$\ 1{,}686{,}000}{11{,}600{,}000} = 14.54\%$$

To eliminate the time differential between the Holiday Inn's and Sheraton's respective stabilized income streams, we must deflate Sheraton's stabilized 1982 net income by the rate of inflation back to 1980, a total of two years. The following inflation rates were used in this calculation:

	Increase Over Previous Year*
Consumer Price Index 1982	4%
Consumer Price Index 1981	10%

*Source: Consumer Price Index, U.S. Department of Labor, Bureau of Labor Statistics

The inflation adjustment for the Sheraton's net income is calculated as follows:

Sheraton Hotel

Year	Inflation Adjusted Income	Inflation Adjusted Income per Room
1982	$2,123,000	$4,246
1981	2,041,300	4,083
1980	1,855,700	3,711

Having accounted for the effect of inflation, we can now analyze the differences in net income for the two hotels.

	Holiday Inn (300 rooms) 1980	Sheraton Inflation Adjusted to 1980	Dollar Difference Holiday Inn vs. Sheraton
Stabilized income	$1,686,000	$1,855,700	$(169,700)
Stabilized income per room	$ 5,620	$ 3,711	$ 1,909

The capitalized value of the difference between the higher and lower income stream is illustrated below.

Additional Capitalized Value to Holiday Inn Purchaser

$$\$1{,}909 \times 300 \text{ rooms} = \$572{,}700$$

$$\frac{\$572{,}700}{.1454} = \$3{,}938{,}790$$

Superior performance adjustment, say $3,950,000

Based on the greater per room profitability of the Holiday Inn versus the Sheraton, due to external, location-related factors, an investor would have paid an additional $3.95 million for the Holiday Inn.

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BUSINESS AND PERSONAL PROPERTY ADJUSTMENTS

Since the sales price of the Holiday Inn included land, improvements, going business, and personal property components, the value of the nonrealty items must be deducted from the total property value to leave a residual real property value.

The value of the going business is estimated in a manner similar to that used for the Sheraton. A management fee based on 4% (market rate) of total revenue is capitalized by the 14.54% overall rate.

Holiday Inn's 1980 Total Revenue		Management Fee Percentage		Management Fee
$5,722,000	×	.04	=	$229,000
$\frac{\$229,000}{.1454}$			=	$1,574,966
Value of going business, say,				$1,575,000

The personal property adjustment consists of a deduction for the return of and on the personal property. Since most investors in lodging facilities generally deduct a reserve for replacement in determining a purchase price, we assume this return of personal property deduction had been factored into the Holiday Inn's $14 million purchase price.

The capitalized return on furniture and equipment is the same as the value for the furniture and equipment in place. Based on a personal property appraisal performed as of the date of sale, the furniture and equipment in the Holiday Inn had a value of $2.1 million.

Subtracting the values attributed to favorable financing, superior operating performance, going business, and personal property adjustment from the total purchase price leaves an adjusted real property value which is now comparable to that of the Sheraton.

Total purchase price		$14,000,000
Less: cash equivalent adjustment	$2,400,000	
superior performance adjustment	3,950,000	
going business adjustment	1,575,000	
personal property adjustment	2,100,000	10,025,000
Adjusted real property value		$ 3,975,000

The final adjustment to be made to the Holiday Inn sale is a two-year time adjustment to bring the value from 1980 to 1982. An analysis of hotel property value appreciation during this period indicated a 15% adjustment would be appropriate.

1980 Holiday Inn Adjusted Real Propery Value		Time Adjustment		1982 Holiday Inn Adjusted Real Property Value
$3,975,000	×	1.15%	=	$4,570,000

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Comparing the per room value of the adjusted Holiday Inn sale with the indicated market value of the Sheraton illustrates that the income approach utilized in the Sheraton valuation is clearly supported by this market sale.

	Holiday Inn	Sheraton
Adjusted real property value	$4,570,000	$7,600,000
Per room	$ 15,233	$ 15,200

CONCLUSION

Our analysis demonstrates how under optimal circumstances a comparable sale can be adjusted to support a real property value developed through an income approach. It did not show how an income capitalization approach was used to support a real property value through the sales comparison approach. This difference is important because hotel buyers and sellers rely primarily on the income capitalization approach rather than the sales comparison approach. In this instance we were able to obtain a significant amount of data and, thus, were able to provide a high degree of documentation for our various adjustments. However, our analysis did not evaluate the motivations of the buyer and seller or other esoteric considerations, which are almost impossible to obtain and can often have a major impact on the purchase price of a property.

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