Hotel Appraisal Analysis based on Tenure and Tenancy Structures

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ABSTRACT

There are 2 key issues in appraisal of hotel assets. In income capitalization approach, the identification of Net Operating Income (NOI) according to the different tenure and tenancy structures is complicated. The value segregation between real estate value and the business value is also difficult. The objective of this paper is to introduce calculation techniques to modify NOI taking into account these issues and to propose an income capitalization approach in hotel appraisal. First of all, the hotel tenure and tenancy structures are classified into 3 types: Lease contract (LEASE), Management Contract (MC) and Direct Operation (DO). Secondary, the proposed techniques to modify NOI are explained. For the identification of NOI, an approach using Revenue Par Room (RevPar), one of the operational benchmarks, is implemented under LEASE. For value segregation, Economic Value Added (EVA) method, which assesses the value of a listed company based on the idea of corporate finance, is used under DO. Thirdly, applying these techniques to an appraisal case, modified NOI is capitalized to produce income values. Through interpretation of the results, advantages of MC, assessment of LEASE, and the effectiveness of PervPar as well as EVA methods are discussed. As final consideration, it is inferred that the proposed process can be used as a reference for investors to analyze strategies of hotel asset management. However, further analysis of Cap rates under MC, capturing hotel brand value under LEASE, assessing the enterprise value under DO are necessary for improving the applicability of this approach.

1. INTRODUCTION

Hotel tenure and tenancy structures are mainly classified into 3 types: LEASE contract (LEASE), Management Contract (MC) and Direct Operation (DO). To decide which hotel tenure structure is the best in managing a hotel asset has always been an issue of interest for hotel investors. Focusing on hotel value, comparison of values under different tenure structures is complicated for the following reasons. First of all, the implication of net income is different. For instance, under MC and DO, the income should come from hotel operation. On the other hand, under LEASE, it should be captured in the hotel asset leasing business. Secondary, there is a certain difficulty in allocation of a value into real estate and business. Profit of a hotel is considered as the output combined hotel hard assets such as land and the building and hotel soft asset like enterprise value. Therefore, setting up a guideline to identify how much of the outcome is attributed to the real estate value and how much to the business value is required.

In Japanese Real Estate Appraisal Standards(2008), there is no specific methodology to demonstrate how to analyze hotel net income. The hotel appraisal guideline issued by the Appraisal Institution in 2008 covers these issues neither.

Thus, for the appraisers in practice, it might be useful to have a guiding principle for a calculation of hotel value according to the Hotel Tenure and Tenancy structure. In 2002, DEROOSE and RUSHMORE proposed a method of calculating hotel net income, identifying net income and segregation of value between real estate and business value.

Therefore, this paper set its objective to propose a hotel income capitalization approach which allows investors to compare real estate value under different tenure structures, applying deRoose and Rushmore method in its process. To reach this objective, the structure of this paper is as follows. Fist of all, the hotel tenure and tenancy structure is classified. Secondary, identification of net income are analyzed and segregation of value in income capitalization approach is introduced. Thirdly, a Japanese hotel appraisal case study is presented. By discussing the case study results, final considerations will be done.

2.   CLASSIFICATION OF HOTEL TENURE AND TENANCY STRUCTURE

Historically, hotel business in Japan was developed as family business. Therefore, the direct operation by these families was the basic tenure type. As time passes, especially after World War II, a number of western systems were implemented into Japanese society. Hotel tenure and tenancy structure was one of them. The owners started outsourcing operation of hotels to the companies specialized in hotel business. Owners have chosen either leasing properties to hotel operators or delegating operation to operators by management contracts. As a result, in Japan, the hotel tenure and tenancy structures fall in one of the three categories:

1. Direct Operation (DO),

2. Management Contract group (MC), or

3. Leasing group (LEASE).

Table 1 shows the attribution of hotel value components according to the classification above and examples for each category.

Table 1: Attribution of hotel value components by tenure and tenancy structure

Tenure types	Direct Operation	Management Contract	LEASE
Base Contract Type	NA	Management Contract	LEASE Contract
Tenure of Real Estate	OWNER	OWNER	OWNER
Operation*	OWNER	OWNER	HOTEL company
Employee**	OWNER	OWNER	HOTEL company
Control of direct operation and HR matters	OWNER	HOTEL company	HOTEL company
Brands***	OWNER	HOTEL company	HOTEL company
Marketing System implementation	OWNER	HOTEL company	HOTEL company

*The entity who obtains the operational profit

** The entity that pays employees' salary

*** The entity that holds hotel brands

3.   IDENTIFICATION OF INCOME TO BE CAPITALIZED IN APPRAISAL

According to this classification, net income to be employed in income capitalization approaches is analyzed as follows.

3.1. Direct Operation (DO)

Under DO, the revenue directly comes from hotel operations. The Gross Operating Profit (GOP) is calculated by reducing the expense from the revenue. The Net Operating Income (NOI), which is capitalized in the income capitalization approach, is calculated after deducting items outside of hotel operation from the GOP. Figure 1 shows the allocations of Revenue into Expense, GOP and NOI. GOP indicates hotel operational results which have to be allocated between return on the real estate and reward on the business enterprise operation.

Figure 1: Cash flow break down under DO

Revenue (Sales) Sales from room Sales from banquet Sales from Food and Beverage Other sales*	Expense	Cost of Goods sold Salary Sales and Administrative cost Maintenance fee Utilities
	GOP Gross Operating Profit	Fee for holding asset Tax Insurance FF&E Reserve** Business Value
	Net Operating Income (NOI) : **Income Capitalization Approach**	

*Telephone, parking laundry, fitness
* *FF&E: Furniture, Fixtures and Equipments

3.2. Management Contract (MC)

Under MC, the management fee should be deducted as an item outside hotel operation. The difference in GOP under MC from DO is the management fee. The fee is considered to be the reward to manage the hotel to produce the operational profit. Namely, it is the return on the investment of soft assets not on the real estate.

Figure 2: Cash flow break down under MC

Revenue (Sales) Sales from room Sales from banquet Sales from Food and Beverage Other sales*	Expense	Cost of Goods sold Salary Sales and Administrative cost Maintenance fee Utilities
	GOP Gross Operating Profit	Management Fee***
		Fee for holding asset Tax Insurance FF&E Reserve**
	Net Operating Income (NOI) : **Income Capitalization Approach**	

*Telephone, parking laundry, fitness
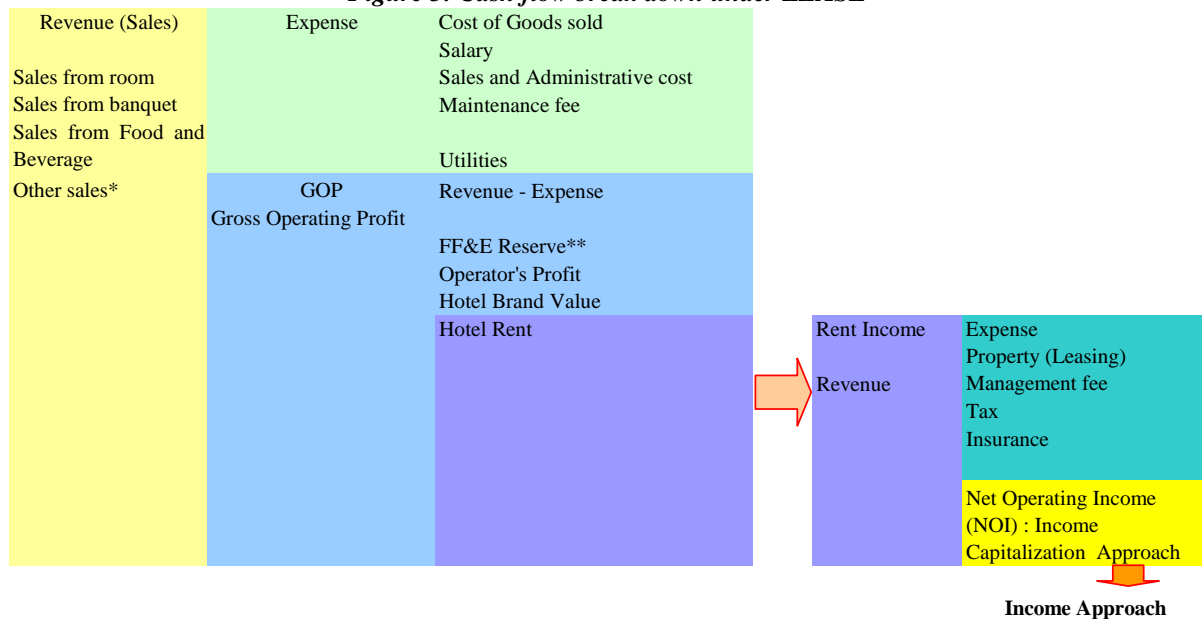* *FF&E: Furniture, Fixtures and Equipments

3.3. LEASE

Under LEASE, the real estate investment and hotel operation can be clearly separated. Hotel rent is agreed between the owner and the operator. The agreed level doesn't always reflect the affordable level depending on the bargaining powers between the owner and the tenant. Operators are willing to pay rent higher than affordable level if they can expect long term return to pay off their initial investment. Owners also show compromise with lower rent to retain well known and profitable hotel brands as operators. To capture the comparable NOI, hotel rent should be analyzed in the relation with hotel operation. In other words, feasible hotel rent should be analyzed assuming the same sales and expense scenario as other 2 structures. The feasible rents should be analyzed and implemented to compare the NOI under LEASE with GOP under 2 other structures. The feasible rent means the maximum rent which secures continuous hotel operation by a hotel operator. It is analyzed by the following process.

1) Calculate GOP assuming stabilized hotel operation. The same assumptions of revenue and expense as applied to DO and MC are also applied to LEASE.
2) Deduct hotel operator's profit, reserve for FF&E, and hotel brand value from the GOP.
   To assess the hotel brand value, taking into account the technique shown in the former paper, the amount come from hotel brand can be captured as the increase of the Revenue per Available Room（RevPar). Therefore, the percentage increase of RevPar is applied to calculate the hotel brand value.
3) Assess the residual amount as the feasible rent.

The Figure 3 shows the relation between the cash flow from hotel operation and rent income.

Figure 3: Cash flow break down under LEASE

*Telephone, parking laundry, fitness
* *FF&E: Furniture, Fixtures and Equipments

4.   VALUE SEGREGATION

Value segregation is a process which isolates the NOI to real property components from the personal property components. Especially for the hotel assets, value segregation allows analysis of real estate value distinct from soft assets value.

4.1. Value Segregation under MC and LEASE

Under MC, it is a fundamental consent that the hotel operator should make the best use of hard assets and implement their soft assets to produce the operational result. It is reasonably assumed that the allocation of GOP to the hotel enterprise is MC fee, which is usually agreed as the percentage of sales or GOP. Therefore, under MC structure, the amount after deducting MC fee as well as FF&E reserve from the GOP is the Net Income attributed to the real estate.

As for LEASE structure, the rent is considered as a sort of fee by which an owner of the property makes a lessee use a property. Thus, rent is assumed as the net income from purely real estate leasing not from the business operation. Therefore, the net income under LEASE is the amount attributed to the real estate, segregated from the business performance.

4.2. Value Segregation under DO

Under DO method, the obtained GOP is an achievement of hotel hard assets and soft assets. In order to capture the value attributed to the real estate, the part of GOP allocated to hotel enterprise value should be deducted. To assess the value attributed to enterprise is calculated, Economic Value Added (EVA) technique, which was explained in the article by DEROOSE and RUSHMORE (2002, p.92-93) is employed in this paper.

EVA is a concept to use to value listed companies by applying a corporate finance theory; Weighted Average of Cost of Capital (WACC). Equation (1) shows proposed EVA calculation method. EVA is determined for the given fixed property investment, A-T Earnings and factors to calculate WACC.

$$EVA = A - T \text{ Earnings} - (WACC \times \text{Property Investment}) \qquad (1)$$
Where:

"A-T Earnings" is the after-tax accounting definition of earnings generated by the investment, calculated by the equation (2)

$$A\text{-}T \text{ Earnings} = \text{Net Income} - \text{Building Depreciation} - \text{Income Taxes} \qquad (2)$$

"WACC" is the weighted average cost of capital, on the after-tax basis, calculated by the equation (3)

$$WACC = \text{Debt Component} + \text{Equity Component} \qquad (3)$$

Debt Component and Equity Component are calculated by equation (4) and (5), respectively.

$$\text{Debt Component} = \text{Debt Rate}(\%) \times (1\text{-Tax Rate} \times \text{Debt Value Ratio }(\%)) \qquad (4)$$

$$\text{Equity Component} = (\text{Risk Free Rate }(\%) + (\text{Equity Market Premium }(\%) \times \text{Firm Bata}) \times \text{Equity to Value Ratio }(\%) \qquad (5)\text{"}$$

5. APPLICATION OF CASE STUDY

5.1. Back ground

Among income capitalization approaches, Discounted Cash Flow (DCF) method is applied. The indicative values are calculated assuming the tenure and tenancy structure changes under the same hotel operator. The subject hotel for this case study has been leased for 10 years, however facing with the lease expiry, the owner needs to find the next operator and the best strategy of asset management. For the potential next operators, 4 major hotel companies are selected. 3 operators are from railroad transportation; JR-West, Hankyu and Keihan. The rest one hotel, Japan Air Line (JAL) Hotel, is from airline industry.

5.2. The Appraisal Process

1. Under the same revenue and expense assumptions, NOI under 3 patterns: LEASE, MC and DO are modified in the way stated in Chapter 3.
2. Among modified NOI, the parts attributed to the real estate are segregated as stated in Chapter 4.
3. Capitalize the modified and segregated NOI to produce the income value.

5.3. The Key Assumptions

1. FF&E reserve
   Given actual amount and market practice, 1% of revenue is reserved for FF&E.
2. Operators' profit: interviewing hotel consultants and hotel operators, 2% of total revenue is counted as the operators' profit which is passed through to the operator under the LEASE structure.
3. Hotel brand value: as mentioned in 3.3, the value calculated by multiplying total sales by RevPar increase percentage is deducted as hotel brand value. The table 2 shows the RevPar Increase trends by hotel group.

Table 2: RevPar Increase by Hotel groups

Hotel Group	Hotel Brand/ Location	Average	RevPar Increase (%)		
			2007	2006	2005
JR	Hotel Granvia Kyoto	3.72%	0.02%	4.09%	7.06%
	Hotel Granvia Osaka	5.77%	10.57%	4.54%	2.22%
	Average of JR Group	**4.75%**			
JAL	Hotel Nikko Tokyo	-4.21%	2.36%	-0.53%	-14.47%
	Hotel Nikko Osaka	2.73%	0.90%	2.03%	5.27%
	Hotel Nikko Kumamoto	3.66%	2.56%	0.86%	7.55%
	Hotel Nikko Kansai Airport	-4.27%	-11.26%	1.10%	-2.64%
	Hotel Nikko Kurashiki	5.52%	0.11%	9.09%	7.37%
	Hotel Nikko Fukuoka	-1.03%	-9.61%	5.88%	0.65%
	Hotel Nikko Nigata	-2.67%	-4.36%	3.17%	-6.83%
	JAL city Sendai	1.56%	1.91%	0.68%	2.09%
	Average of JAL Group	**3.37%**			
Hankyu	Hotel Hankyu International	2.56%	1.20%	3.14%	3.35%
	Average of Hankyu Group	**2.56%**			
Keihan	Hotel Keihan Kyoto	0.98%	-0.88%	2.85%	0.98%
	Average of Keihan Group	**0.98%**			

Weekly Hotel-Restaurant Best 300 Hotels 2005-2007:Otapublications

4. Hotel Enterprise Value: applying EVA method, the hotel enterprise values are calculated shown in the table 3.

Table 3:Enterprise Values Applied EVA method

| Company Name	JR-West	HankyuHanshin Holdings	Keihan Railroad	Japan Airline
Debt Rate	2.00%	1.27%	1.19%	1.21%
Tax Rate*	40%	40%	40%	40%
Debt to Value Ratio	50.00%	50.00%	50.00%	50.00%
Debt Component	1.5960%	1.0192%	0.9532%	0.9691%
Risk Free Rate**	1.39%	1.39%	1.39%	1.39%
Equity Market Premium***	12.00%	12.00%	12.00%	12.00%
Firm Beta	0.53	0.75	0.27	0.08
Equity Value Ratio	50.00%	50.00%	50.00%	50.00%
Equity Component	4.5700%	5.8900%	3.0100%	1.8700%
WACC	6.1660%	6.9092%	3.9632%	2.8391%
Property Investment	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
WACC*Investment	184,980,000	207,276,000	118,896,000	85,173,000
AT earning	259,038,355	276,495,437	253,147,928	239,653,496
Buiding Depreciation	81,439,581	81,439,581	81,439,581	81,439,581
Income Tax	172,692,236	184,330,291	168,765,285	159,768,998
EVA	74,058,355	69,219,437	134,251,928	154,480,496

* Effective Corporate Tax Rate, modified Corporate Tax Rate of 30% in Japan.

** The Ten-Year Govermet Bond as of June 2009

*** Equity invetors' expectation, based on the interviewing with consultancy or brokers

5. Analysis term: given necessary years for stabilization, 4 years DCF approach is applied.

6. Discount Rate and Terminal Cap Rate: the recent trend of investment demands for operational assets in regional cities, risks involved in the subject property, and middle to long term trend of hotel investment market similar to the subject's are taken into account. Consequently, 7.5% of discount rate and 8.5% of terminal cap rate are applied under LEASE. Moreover, looking specifically at the investors' risk assessment between LEASE and MC, 100bp of spread is added for the MC structure. Under DO structure, the owner has to be exposed to much larger risks of hotel operations. As a result, further 100 bp is added on both terminal and discount rates. Graph 1 shows the investors expectation of Cap rates for different tenancy structures.

Graph1: Cap rate transition by region and tenancy structure
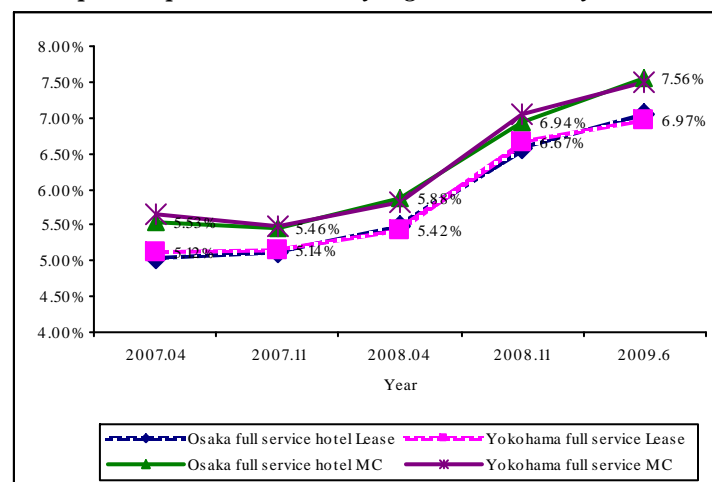
Hotel Cap Rate Questionnaire Survey June 2009Japan Hotel Appraisal Co.,Ltd.

5.4. Results

The results of applying DCF methods are as follows. As for comparison, the fee simple value which includes all the enterprise value is also calculated.

Table 4: Appraisal results

	LEASE	MC	DO	[million yen] Fee Simple
JR	1,375	2,141	2,328	3,254
Hanky	2,233	2,978	2,578	3,481
JAL	1,388	2,196	1,057	2,934
Keihan	1,724	2,483	2,183	3,058

6. DISCUSSION

Based on the results above, the interpretation of tenure and tenancy structures as well as effectiveness of value segregation should be discussed.

6.1. Analysis and Proposed Strategies under MC, LEASE, and DO

MC is the highest under Hankyu, JAL and Keihan and DO is the highest under JR. LEASE is the lowest under JR, Hankyu, and Keihan.

6.1.1. Advantages of MC

Analysis: Among 3 tenure structures under, MC looks bringing the highest value. This comes from the owner's expectation to share the profit under MC, even considering the risks involved in hotel operation. The applied cap rate level may be adjusted by further Cap rate analysis between MC and LEASE. For instance, inflexibility of changing operators at the exit may be assessed as more serious risk than it is appeared in the investor survey (Graph1). Therefore the result of MC indicates the highest possible value from the owner's point of view. Another reason for the highest values of MC is the adequacy of MC fee. It is also meaningful to calculate adequate MC fee by comparison with the enterprise value deducted under the DO scenario.
Strategies: For effective investors' strategies, implementing MC should be considered as the first choice. To incentivize the operator the owner can start the operation with MC for some years then switch to LEASE. By doing this, the owner can reduce risks and the operator can get higher profits directly from the hotel operation. Depending on the economy and local hotel market, the other way around also works; initiating with LEASE then switch to MC for sharing the profit. Only JR's MC value indicates lower than DO value, this could have been modified by applying improved method of value segregation.

6.1.2. Assessment of LEASE

Analysis: The values under the LEASE are lower than values under DO or MC. This is because the real estate values were extracted in more precise manner than they were under other 2 structures. RevPar, which is used to calculate the hotel brand values, should be analyzed further. Another substitution way to assess hotel brand value can be considered by referring the enterprise value deducted under DO.

Strategies: Lower value doesn't mean poor operation. On the contrary, it sometimes shows their strong expertise. For instance, LEASE of JR is low because their hotel brand value, which is deducted from GOP, was estimated high. Applying RevPar increase to assess hotel brands for this analysis, JR's track records to improve RevPar tells that significant part of the GOP should be allocated as JR's achievement. Under such situation, negotiating rent increase can be reasonable strategy to share the increased profits. Changing the contract from LEASE to MC may lead win-win situation. The owner can share the profit while the operator can be more incentivized.

6.1.3. Interpretation of DO Value

Analysis: The values under DO assumptions can be volatile depending on the enterprise value. In other words, the strength and the credit of the corporate brands affect how much of the hotel value should be eroded from the fee simple value as the contribution of enterprise. See also 6.2.2. **Strategies:** DO value can be used for a hotel company to decide their operation strategies. For example, JAL hotel group can maximize their profit focusing on MC operation rather than renting or holding hotels. DO value is also used for analyzing the exit strategies. An owner of hotel operated by JR may consider to sell the property to JR to make proceeds recognized as the difference between MC and DO.

6.2. Extraction of Real Estate Value

Compared to fee simple value, all of the values are calculated lower than fee simple values. This implies that the results represent the residual real estate value of whole hotel assets.

6.2.1. Effectiveness of RevPar Technique

Under LEASE, hotel brand value was calculated through RevPar technique. However, this technique may not be effective to estimate brand value for a well established hotel keeping stabilized RevPar. The hotel brand value calculated by this technique might be lower than the amount it is supposed to be. Comparing Hankyu's RevPar with JR's, the former indicates smaller than the latter. This doesn't necessarily mean the inferior operation of Hankyu to JR. In the business growing cycle, Hankyu is now in the maturity stage while JR is in growth stage. This different position seems to appear as the difference in RevPar increase. However, looking at hotel values of 2 brands, the matured one may be higher than the one in growing stage. RevPar technique can't eliminate such misrepresentation of hotel brand values. Hotel brand values, which are subject to be subtracted from GOP, can be analyzed by comparing the result of enterprise value as well as with adjusted MC fee.

6.2.2. Enterprise Value Consideration

Looking at JAL, the fee simple value is not lower than these of other hotel operators; however the values under 3 tenure types are far below than these of others. For instance, the value under DO is less than half of these values of other 3 operators. This is mainly due to the enterprise value of JAL. JAL's company beta is quite low, which means the volatility of JAL's stock price is extremely low against the change of whole stock market, demonstrating the solid credit of JAL. Presumably, compared to other railroad companies, JAL is a nation wide and the most dominant airline company and they have successfully maintained a good credit of their business group. Therefore, having JAL as a hotel operator is not negative. It is rather valuable because the owner can explore a lot of value-up possibilities. The impact of enterprise value on the hotel

appraisal should be further developed by analyzing value extraction in different hotel groups from various industries. Probably, national hotel brand focusing only DO or a brand new budget hotel group may bring different results worth analyzing.

7. FINAL CONSIDERATION

The proposed income capitalization approach can be used as a reference when investors develop the hotel asset management strategies. However, Cap rates and MC fee analysis under MC, assessment of brand value under LEASE, and the enterprise value analysis under DO need to be further developed.

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