Appropriate Disclosure of Risk Factors associated with Investments in Healthcare Properties

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Abstract

Compared with investments in residential and office buildings, investments in healthcare properties in Japan represent a small share of the commercial real estate market. Nevertheless, the need for such healthcare facilities is increasing with Japan’s rapidly aging society so increased investment in this subclass of real estate assets is desirable. This paper aims to identify risk factors that are unique to healthcare properties, and which should be considered in making investment decisions. The appropriate disclosure of such risk factors is explored by applying and customizing established measures currently used to evaluate hotel properties. The impact of such disclosure on the market prices of healthcare J-REITs is also examined.

Keywords: commercial real estate, risk factor, healthcare property, REIT, operational asset, Summary Operating Statement, USALI, maximum affordable rent, GOP, management contract

1. Introduction

1.1. Background and objectives

There is increasing demand for senior living and long-term care properties because of the rapidly aging Japanese population. However, investment from institutional investors or stock markets to furnish such properties has remained limited. Many industry analysts have argued that a lack of familiarity with the business of senior living properties has prevented many commercial real estate investors from identifying and accurately evaluating the risk factors associated with these properties.

In this paper we first aim to identify unique risk factors that should be considered in making investment decisions in healthcare properties. Next, we explore appropriate definitions and classifications of such factors for disclosure to investors. We also examine market data of listed healthcare J-REITs in Japan to see how disclosure influences their stock price fluctuation.

We believe insights from this paper could contribute to increasing commercial investment interest in healthcare properties and consequently satisfy the growing needs of an aging population for such properties. In addition, our recommendations in this paper may help to expand the risk spectrum of market participants to include other operational assets such as medical-related facilities. Our work could also lead to research to explore how disclosure matters for investment products backed by operational assets.

1.2. Article outline

Section 2 summarizes the history and current state of the Japanese commercial real estate market, and examines recent efforts to encourage investment in healthcare properties. Section 3 discusses why existing risk evaluation methodologies for representative sub-asset classes of commercial real estate, such as residential or office buildings, cannot be directly applied to healthcare properties. In Section 4, we identify important risk factors for healthcare properties by analyzing their operating cash flow structure. In Section 5, we discuss a disclosure technique used to evaluate hotels, a sub-asset class that is well-established and which has a broad investor base. In particular, we explore the application of the “Summary Operating Statement” included in the USALI (Uniform System of Accounts for the Lodging Industry) to healthcare properties. Subsequently in Section 6, we use actual disclosed information and stock price data from three healthcare J-REITs to examine whether disclosure about healthcare properties, in the form of such Summary Operating Statements, does benefit investors.

Many terms are used to refer to real estate products associated with providing nursing or elder care. These include: assisted living residence, elder care facility, nursing home, senior living, and senior residence. In this paper, we use the term “healthcare properties” or “senior housing” to represent those facilities providing comprehensive accommodation, meal, and nursing care services on a same premises.

2. Japanese Commercial Real Estate

2.1. Overview of the market

In this paper, we define commercial real estate as real property owned by a REIT or a private real estate investment fund, which generates lease rent as investment income. The collapse of the so-called Bubble Economy in the early 1990s was followed by a period of trial-and-error
to work out huge amounts of bad debt owned by financial institutions. Since then, the Anglo-American style of property appraisal using the capitalization method has become a market standard for evaluating commercial real estate in Japan. At the same time, improvements in real estate securitization techniques and an increasing supply of non-recourse finance have stabilized and expanded the commercial real estate investment market.

Subsectors of the real estate market that generate large trading volumes typically include shopping centers and warehouses, in addition to residential and office buildings (referred to as “representative commercial real estate” in contrast to “operational assets”). A survey in 2016 by ARES (The Association for Real Estate Securitization) estimated the size of the Japanese commercial real estate market at around 30 trillion yen.

2.2. Healthcare properties as commercial real estate

A variety of market surveys reveal limited investment from J-REITs or private real estate investment funds into the healthcare subsector. This pattern contrasts with the large and growing healthcare demands from Japan’s aging society. According to some market analysts, this is due to the lack of established and accepted due diligence procedures and difficulties in disclosing operating information about individual properties. Worzala et al. [1] found that, in the United States, cash flow uncertainties associated with the provision of senior housing tenant services inhibited institutional investors from investing at an earlier stage of healthcare REIT development.

2.3. Recent Market Movements

Since 2012, there have been initiatives in both private and public sectors to promote the supply of healthcare properties using securitization techniques. The Land Economy and Construction Bureau of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) synthesized the challenges and, in June 2014, issued guidelines for the role of REITs in the provision of senior living properties (“MLIT Guidelines”). Three healthcare J-REITs, incorporating the MLIT’s recommendations for developing a viable healthcare REIT have since successfully listed.

3. Literature and Market Practice

3-1. Risk factors common to all subsectors

In the commercial real estate market, information on property risk factors is indispensable to make good investment decisions. The investment structures for “representative commercial real estate” are relatively simple and the key risk factors for individual assets are usually very similar. The following five elements used to determine risk are common to all real estate subsectors:

(1) Details on rights relationships for the land and premises
(2) Details of the lease contract
(3) Information on asset managers, property managers, and other important parties
(4) Appraisal based on detailed cash flow records of the property
(5) Engineering reports documenting reconstruction costs, maintenance expenses, probable maximum loss upon earthquake, etc.

Full disclosure of these factors has been widely accepted in the markets so their application to healthcare properties is unlikely to encounter difficulties.

3-2. Literature and market practice on healthcare properties

In studies of the development of U.S. healthcare REITs, Mueller and Anikeeff [2] examined six alternative REITs and found that volatility increased with increasing ratios of operational income to rental income. Eichholz et al. [3] showed empirically that healthcare REITs could attain higher returns from investments in senior housing than from integrated healthcare companies.

Haga et al. [4] and Nagai [5] focused on the concept of “maximum affordable rent” embedded in operational assets and analyzed how the concept should be construed in real estate valuation. Haga et al. [4] further tried to weigh various risk factors associated with healthcare properties to properly incorporate them into capitalization rates. Otaya [6] related operational capability and financial soundness of the property operators to maximum affordable rent, and tried to assess the risk associated with these factors relative to other factors typically considered in investment decisions. Naturally, gross operating profit (GOP) functions as a ceiling for maximum affordable rent for any operational asset to stay solvent on a stand-alone basis. It is of course necessary for operators to cover replacement cost of FF&E (furniture, fixture, and equipment) out of GOP to maintain the effectiveness of their assets. This is why their operating capabilities affect the evaluation of operational assets. In a review of prior REIT analyses, Seki [7] noted that the voluntary disclosure by REITs of non-audit information, such as rent coverage of EBITDAR (Earnings before Interest, Tax, Depreciation, Amortization, and Rent), had contributed to growing the U.S. healthcare-focused REITs share of the whole U.S. REIT market by 10% or more.

3-3. Uniqueness of healthcare properties

Wiley and Wyman [8] compared senior housing to traditional apartments in the United States and found that the operational nature of senior housing assets is a significant factor influencing valuations. Figure 1 illustrates the various relationships among different parties in a typical commercial real estate investment structure for healthcare properties. For most investments in residential or office buildings, the valuation of the property is not affected by tenant attributes. However, as Fukuyama [9] and Muraki [10] argued, the maximum affordable rent accruing from senior living assets depended on how well the tenant operators managed the facility, and therefore appraisals were influenced by the
operators’ capabilities. Muraki [10] further argued that evaluations of healthcare properties should incorporate thorough analyses of their operational cash flows and maximum affordable rents to be consistent with global standards of real estate appraisal, such as IVS (International Valuation Standards).

Figure 1 A typical investment structure for healthcare properties

![Diagram of investment structure]

**4. Identification of Risk Factors**

**4.1. Operating cash flows of healthcare properties**

It is common for healthcare operators to provide both publicly insured nursing care and other non-insured services at a single facility. For a fair evaluation, we have to take both types of services into account. Figure 2 describes aspects of cash flow for healthcare properties, which differ from cash flows associated with residential or office buildings.

Operational cash flow items can be separated into two categories as presented below in Table 1.

Limited understanding of the business of senior housing can lead to a focus on so-called “hotel costs” as represented by 1b-3 and 1b-5 in Table 1. However, activities such as other non-insured nursing care services (1b-1) and housekeeping services (1b-2), as well as insurance reimbursements (1a-1), are considerable sources of revenue, and should not be overlooked in the evaluation of healthcare properties.

**4-2. Risk factors associated with healthcare properties**

The MLIT Guidelines provide broad suggestions regarding disclosures and assurances for residents. However, the guidelines do not specify which items to disclose, their definitions, calculations, or concrete approaches that include attention to residents. Similarly, majority of market analysts argue various risk factors without weighing their relative importance.

Figure 2 Breakdown of cash flows - operation and lease for healthcare properties

![Diagram of cash flow breakdown]

**Table 1 Classification of sources of operational cash flow from healthcare properties**

| Cash flow category | Cash flow details |
|--------------------|-------------------|
| 1a. Services insured by public nursing care insurance | 1a-1. Insurance payments including deductibles borne by insured |
| 1b. Non-insured services and others | 1b-1. Non-insured nursing care insurance |
| | 1b-2. Housekeeping services such as cleaning, shopping, etc. |
| | 1b-3. Monthly charges for accommodation and administrative fees |
| | 1b-4. Monthly charges for meal services |
| | 1b-5. Utility charges |
| | 1b-6. Entertainment services such as seasonal events, birthday party, etc. |
| | 1b-7. One-time entrance fee amortization income (non-cash flow item) |

In Table 2, we propose a broad list of risk factors associated with healthcare properties, regardless of their degree of importance. Many of these factors are also relevant to non-operational commercial real estate.
4-3. Identification of important factors

In Table 3, we summarize our analysis and reasoning about the importance of this subset of risk factors.

Table 3 Identification of important risk factors associated with healthcare properties

| Important risk factors (corresponding # in Table 2) | Background reasoning and key considerations |
|---------------------------------------------------|--------------------------------------------|
| 3a. Risks with lease contracts (2b-1 and 2b-2)     | 3a-1. This information will affect the operator’s potential profitability (balance between revenues and costs) |
| 3b. Operating performance and cash flow of the property (2c-2) | 3b-1. This information is needed to check the profitability of each revenue segment, and the capability to pay out rent solely from operating income based on actual occupancy, rather than relying on operator’s ability to pay.  
3b-2. To ease disclosure, it is indispensable to balance its merits and resistance of operators who fear potential detriments caused by information leakage.  
3b-3. It is necessary for sound operations to pay enough attention to residents’ fears about continuity of operation as a senior living upon potential trade of the property.  
3b-4. It is also important to reassure residents that pursuing return on investments by REIT or private fund does not deteriorate quality of services offered by operators. |
| 3c. Operating capabilities of operators (2c-3)      | 3c-1. Based on past track records, examining operator’s capability to manage the premise enough to maintain expected cash flow. |

Among the broad set of risk factors listed in Table 2, we identified a subset of factors that could be affected by healthcare property operators’ capabilities. They are chosen by our judgements with regard to their relative importance to influence cash flow realization from business operations.

Some market analysts argue about the relative importance of items 2a-4 and 2c-4 in Table 2 for assessing healthcare property risk. However, we concluded that they are not as critical as others items in Table 3, for the following reasons:

(1) It is relatively easy to determine whether a facility is suited as a healthcare property by conducting due diligence before its acquisition.

(2) In the current business environment, many capable operators are available. Thus it is easier to select a better operator than to switch to an alternative usage of the property.

(3) For the same reasons, the operator’s financial soundness is not expected to be a critical constraint. An alternative operator can be found relatively easily if and when replacement becomes necessary.

5. An Application of the Uniform System of Accounts for the Lodging Industry (USALI)

5-1. Literature and market practice on hotels

Yamaguchi et al. [11] noted that hotels typically operate three different segments (accommodation, food / beverage, and banquet) out of the same premises. These are mutually independent businesses but have a number of expenses in common. Similarly, healthcare properties jointly offer accommodation, meal, and care services as needed by their residents. Hotels are analogous operational assets to healthcare properties in that hotel investment decisions similarly account for the operator’s management capability, operating cash flow, and
maximum affordable rent. Moreover, hotels and healthcare properties have many other features in common, such as long-term leases of 5 to 20 years, revenues in similar accommodation or meal service segments, operational environments involving many specialized operators, cash flows that depend on both services and equipment, and the combination of services offered to their guests. Thus, we understand that the well-established and sophisticated evaluation measure used for hotels could be readily applicable to healthcare properties.

We observe that many hotels are run under so-called “management contracts”, where management and operation are separately assumed by different entities other than the owners of the property. This approach developed historically through the realization that hotel managers could achieve sophisticated large-scale management capabilities by concentrating on hotel management without the responsibility of property ownership or the labor cost burden.

Not many healthcare properties have employed this style of management and operations so far. However, as healthcare operators become more common, management contract-like schemes could be a possible option for them to avoid excessive burdens on their balance sheet. Gottlieb [12] observed that strong partnerships between healthcare-focused REITs and operators had improved performance by both REITs and operators and also enabled the rapid development of U.S. healthcare since the early 2000s. He asserted that healthcare real estate had come to be seen as a core subsector of the real estate market partly due to such partnerships.

5-2. Hotel operation and USALI

USALI was enacted as a managerial accounting tool by the American Hotels & Lodging Association in 1926. It has been continuously modified and is still widely used.

USALI separates operating cash flows into items with variable profitability and cost management measures. It enables efficient analysis and comparison of performance between different hotels on a same standard. Although it was originally a managerial accounting tool, now it is widely used for business evaluation of hotels and hotel appraisals. Yamaguchi et al. [11], Shimizu [13], and Hasegawa [14] have discussed and analyzed the merits and potential issues with the application of USALI to the Japanese lodging industry.

USALI computes cash flow through the process starting from segment revenues to GOP through to income attributable to management, operator, and owner. Figure 3 shows the breakdown of GOP into income attributable to management, operation and lease for hotels under management contract.

If rents are to be covered solely by operating cash flows, GOP stands as a ceiling over maximum affordable rent. Cash flow distribution to the manager and operator acts as a buffer to fully pay rent in case GOP decreases. Conversely, the distribution increases as GOP increases. Therefore, it is important to set rent at a level that motivates manager and operator to earn enough GOP to consistently bear the rent payments. This same logic can be applied to the operations of healthcare properties.

5-3. Correspondence of operational cash flow items

The similarity between healthcare properties and hotels, such as both providing accommodation and meals to multiple users, suggests the feasibility of applying a USALI-like instrument to healthcare properties. This approach should provide more meaningful information than just a subset of cash flow items. In Table 4, we show an analysis of all operating cash flow items that are common to hotels and senior housing properties. We need to care for the lack of management contract scheme with healthcare properties. However, USALI could still act as a useful instrument to access operational cash flows from them as we can easily combine management and operator as we saw in Figure 3.

In-depth disclosures about healthcare properties equivalent to those of hotel properties would enable investors to incorporate information about the uniqueness of operational assets into their risk assessments, providing a competitive edge over disclosures lacking detailed operational cash flow information. Valuations would still be based on net cash flow, however, investors could check if the actual rent is reasonable relative to the maximum competitive rental rate.

![Figure 3 Breakdown of GOP – management, operation and lease for hotels under management contract](image)

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affordable rent envisaged from the GOP. Investors could also verify the sufficiency of non-operating expenses for continuing operations, in particular FF&E expenses and reserves. Furthermore, investors could simulate those figures as needed to gauge the real potential of the facility.

6. Healthcare J-REITs

6-1. Variability of disclosure

Table 4 Adaption of USALI Summary Operating Statement for healthcare properties

| USALI items | Corresponding items for healthcare properties (item # in Table 1) |
|-------------|---------------------------------------------------------------|
| 4(i) Revenue | |
| 4(ii) Income attributable to owner (4(vii)b) - 4(x) | |
| 4(viii)c Depreciation, etc. | |

In this section, we examine information provided by three healthcare J-REITs, listed anonymously as J-REIT A to C in Table 5. All three J-REITs explain that they conduct careful due diligence on each of the assets and operators upon acquisition to check their competence as operational assets, as well as their future viability. In addition, they claim that they routinely compare actual and expected operating cash flows. This suggests that these three J-REITs themselves well understand the significance of operating cash flow analyses for healthcare assets.

However, none of the three REITs provide detailed disclosures on an individual asset basis. This level of detail is perceived as “sensitive” due to operator anxiety about possible abuses of such information. Instead, they release portfolio-level information as shown in Table 5.

Table 5 Actual operating information disclosed by healthcare J-REITs (“Yes” indicates periodic disclosure)

| | Healthcare J-REIT A | Healthcare J-REIT B | Healthcare J-REIT C |
|---|---------------------|---------------------|---------------------|
| Listing year | 2014 | 2015 | 2015 |
| 1. Rent-paying capacity of the portfolio (multiple of EBITDAR divided by rent) | Yes | No | Yes |
| 2. Proportion of portfolio income from public insurance payments | Yes | No | No |
| 3. Proportion of one-time entrance fee amortization of the portfolio | Yes | No | Yes |
| 4. Actual occupancy rate | Yes | Yes (upon listing only) | Yes |

6-2. Summary Operating Statement drawn up from disclosed information

None of the three healthcare J-REITs shows sufficient information to fully complete Summary Operating Statements for individual assets nor the portfolio as a whole. Nevertheless, they disclose different degrees of information as follows:

1. J-REIT A discloses the most information on operating cash flow for its portfolio, while J-REIT B provides very little. J-REIT C stands in the middle.
2. Solely J-REIT A shows four operating cash flow items on a continuing basis at the end of each fiscal period.

In Table 6, we show our efforts to complete part of the Summary Operating Statement for J-REIT A. We used the available figures and applied an assumption about the operator’s depreciable and amortizable assets at one million yen per room for a 7-year durable period.
### 6-3. Stock beta of J-REITs across subsectors

In sections 6.3 to 6.5, we analyze the cost of equity (referred to as “beta” or “stock beta”) of J-REITs as an indicator of the market reputation for their management including the quality of their disclosures. Since REITs are well-controlled investment vehicles backed by stable cash flows generated from underlying properties, they should have relatively lower risk and return market profiles. Accordingly, we assume that appropriately managed REITs should have a positive beta substantially smaller than one.

The dividend yield is the most popular indicator of REITs. However, dividend yield is also more sensitive to the sponsors, portfolio geographical diversification, focusing asset classes, and financial leverage, all of which vary by REIT. Therefore we believe dividend yield is not an effective indicator for quality of disclosure.

Results of beta calculations for J-REITs as a whole and five representative J-REITs are presented in Table 7. In our analyses, we employed TOPIX Index as a proxy for overall market fluctuations. We chose a J-REIT from each of the J-REIT sub-sectors (excluding healthcare focus) by market capitalization as of November 30, 2016. These J-REITs, each representing limited-scope businesses solely invested in qualified properties backed by stable cash flows from leases, show lower positive stock betas as expected. The beta of the TOPIX Index is 1.013, providing evidence of stable stock price movements for REITs as a whole. Relatively stable sub-sectors such as residential or office building focused REITs show even lower betas than the TSE REIT Index.

| REIT or index | beta |
|---------------|------|
| TSE REIT Index | 0.325 |
| Nippon Building Fund (NBF) (office building focus) | 0.318 |
| Advance Residence Investment (multifamily apartment focus) | 0.218 |
| Japan Retail Fund (retail commercial property focus) | 0.342 |
| Japan Hotel REIT (hotel focus) | 0.483 |
| Nippon Prologis REIT (logistics focus) | 0.304 |
| Nikkei 225 Index (reference information) | 1.013 |

### 6-5. Impact of variability of disclosure

In this section, we examine how variability of disclosure affects the reputations of healthcare-focused J-REITs by comparing their betas. We compare J-REITs A and B, which disclose the most and the least information respectively.
Figures in Table 7 and 8 are computed by the following formulas. “X” denotes expected daily price change ratio of TOPIX Index as independent variable, while “Y” stands for those of J-REITs as dependent variables and “n” for the number of trading days in the calculation period:

\[
\hat{Y} = \hat{a} + \hat{\beta}X \\
\hat{\beta} = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2} \\
\hat{a} = \bar{Y} - \hat{\beta} \bar{X}
\]

As we saw in Table 8, we got 0.181 for \( \hat{Y}_{(J-REIT \ A)} \) to TOPIX and 0.269 for \( \hat{Y}_{(J-REIT \ B)} \). Healthcare J-REIT A shows the lowest beta among all J-REITs discussed in this paper. We extended calculations for two years back to 2015 as a confirmatory test and again found J-REIT A had a clearly lower beta at 0.225.

As a further analysis, we regressed \( Y_{(J-REIT \ A)} \) on \( X_{(J-REIT \ B)} \) to see if the difference of betas between J-REIT A and B could be statistically verifiable, and got a following equation:

\[
\hat{Y}_{(J-REIT \ A)} = \hat{a}_{(J-REIT \ A)} + \hat{\beta}_{(J-REIT \ A)}X_{(J-REIT \ B)} = 0.01\% + 0.475 X_{(J-REIT \ B)}
\]

(t-ratio for \( \hat{\beta}_{(J-REIT \ A)} \) is 10.158)

This t-ratio shows that \( \hat{\beta}_{(J-REIT \ A)} \) is significantly different from zero. Therefore, we may be able to conclude lower beta of J-REIT A compared to that of J-REIT B is statistically verified.

We plotted mutual price fluctuation between J-REIT A and B, which depicted a weak positive correlation, as shown by the shallow dotted line in Figure 4.

7. Concluding Remarks

7-1. Desirable and feasible disclosure

It is not realistic to immediately request disclosure of detailed operating cash flow per property from healthcare REIT managers and operators. A more realistic approach may be to gradually increase portfolio-based disclosure as has been done in the United States. By gradually increasing their release of portfolio and property operations details, healthcare REITs could demonstrate their accountability and responsibility to investors.

Currently, the vast majority of assets held by healthcare J-REITs involve fixed rent lease contracts. However, some capable operators may prefer to sign variable rent leases to enhance cash flows from their operations. If more J-REITs choose to sign variable rent lease contracts in the future, the periodic disclosure of such information would become essential.

7-2. Supplemental qualitative disclosure

In addition to quantitative information evaluation, some qualitative information related to operators’ management or operating capabilities is equally important to disclose. Necessary qualitative information includes the following:

(1) Marketing ability to recruit residents
(2) Organizational structure and employees’ credentials that support superior treatment under public nursing care insurance
(3) Approaches to legal compliance
(4) Issues related to an operator’s financial situation
(5) Responsiveness to requests or claims from residents
(6) Third party accreditation

It is also important to check whether properties or operators are bound by any legal or other constraints that could prevent REITs from utilizing various investment and finance measures.
7-3. Remarks
This research aimed to identify unique risk factors associated with investments in healthcare properties to help investors conduct quantitative and qualitative analyses for their investment decisions. In addition, we showed that USALI, an established disclosure format used to show the operating cash flow of hotels, could be applied to evaluate risk factors associated with healthcare properties.

All healthcare operators engage in various non-insured nursing care and housekeeping services in addition to insured nursing care service in the same facility. However, non-insured services are often not visible or out of sight of investors’ attention. Therefore, as USALI does for hotels, we recommend that a healthcare facility’s whole operating cash flow be included in the evaluation of healthcare properties. Otherwise, treating rents from healthcare operators just like income from residential or office tenants may overlook meaningful operational aspects of healthcare facilities. We propose a Summary Operating Statement for healthcare properties as a tool that addresses most of the operational risk factors and provides quantitative data to each of the relevant parties.

Currently, none of the three listed healthcare J-REITs discloses as much operational information as recommended in this research, although their actual disclosure levels vary. That J-REIT A has the most investor-friendly disclosure and shows the most stable stock price movement may demonstrate potential generality of this research. This finding suggests that sufficient disclosure of the risk factors we identified could usefully inform investment decisions.

As the number of listed healthcare J-REITs increases, expectations around disclosures to investors will likely also increase, thus leading to a greater accumulation of public data. In further research on this topic, we plan to conduct additional statistical analyses such as multiple regression. We aim to use the risk factors identified in this paper as independent variables to measure their relative importance more quantitatively.

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