

Focus on J-REITs and Risk Management of J-REIT Investments

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1. Environmental Changes in Asset Management

Alternative investments have begun to secure a solid place in the asset management of institutional investors in addition to the management of traditional assets. The aim of this expansion in the types of assets managed is the use of alternative investments to make up for the decrease in expected earnings from traditional assets and the pursuit of alpha while managing market risk exposure. From a global perspective, the excessive liquidity generated by the continual low interest rates and the increase in the yen carry trade that utilizes the zero cost of capital in Japan are beginning to transform into the risk factor to the extent that future interest rate hikes will influence the global flow of capital. It is impossible to make an accurate general statement about hedge funds due to the presence of products with diverse management strategies but it has been pointed out that it will be difficult to achieve the performance levels of before, due to the excessive amounts of capital available. Within this diversification of choices in asset management, traditional real estate investment has heightened its refinement as an investment product with the birth of the J-REIT and other developments and is drawing much attention today.

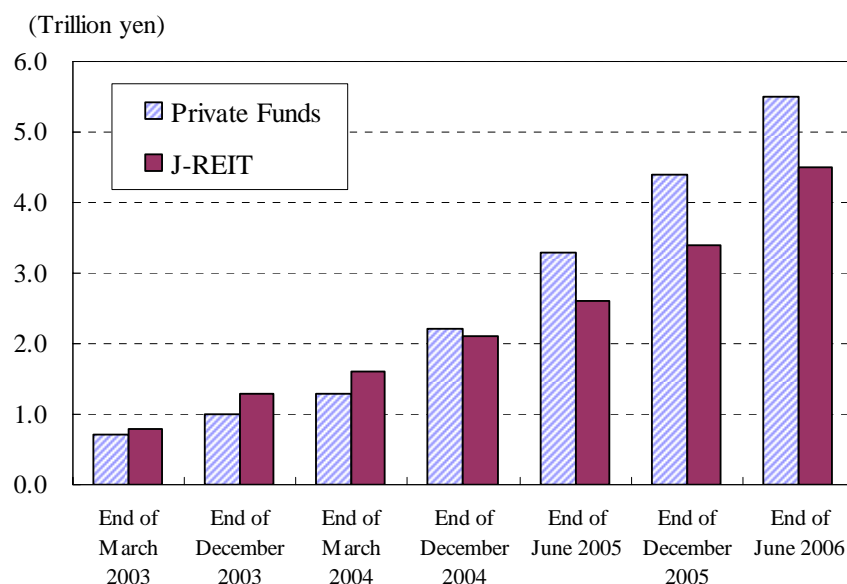
It has become very important to secure earnings while conducting appropriate risk management within the increasing complexity of various changing variables related to asset management.

2. Development of the Real Estate Investment Market

The legal system for real estate investment has been put in place since the latter 1990s and initially the full-on real estate investment market in Japan raised its curtain with

the taking of risk by overseas investment capital. Presently listed J-REITs and private funds act as the two wheels and the market has grown to where real estate assets that have been invested in surpass 10 trillion yen in size (Figure 1).

Figure 1 Growth of Real Estate Investment Market (based on acquisition value)



Source: Figures for private funds are based on STB Research Institute estimates and calculations. These figures do not include real estate investment in Japan by foreign-registered funds run by foreign financial institutions or investment companies.

The establishment of a real estate investment market environment and the growth of the market are global trends. Global institutional investors have positioned real estate as a materially important investment target in addition to traditional assets. In particular, the listed product of a REIT was pioneered by the U.S. and Australia but is rapidly forming into a common platform for attracting global investment capital as the system infrastructure is put into place in North American, Asian and European countries.

In summary, the J-REIT market in the five years since its birth has grown to 40 issues and the listed markets are not limited to the Tokyo Stock Exchange but also include the Osaka Securities Exchange and JASDAQ, etc. The portfolio is also not limited to offices and retail properties anchored by GMSs, as in the initial stage, but has expanded to include residences, warehouses, hotels and senior housing. The investment area

continues to be dominated by Tokyo with about sixty percent of assets in the 23 wards of Tokyo, but properties are slowly spreading into local areas with portfolio properties now present in 33 prefectures.

3. J-REIT Investment Characteristics and Market Changes

The source of J-REIT dividends are the rental revenues of operating real estate and these rental revenues are both steady and very predictable. Therefore, J-REITs have the product characteristics of income products and have been received by the market as products similar to bonds and the dividend returns are emphasized as a valuation indicator. Within the difficult management environment of ultra low interest through 2004, the assessment in the market grew because the dividend returns of J-REITs were attractive. It is needless to say that the steady accumulation of a distribution track record at each J-REIT has contributed to securing the trust of the market.

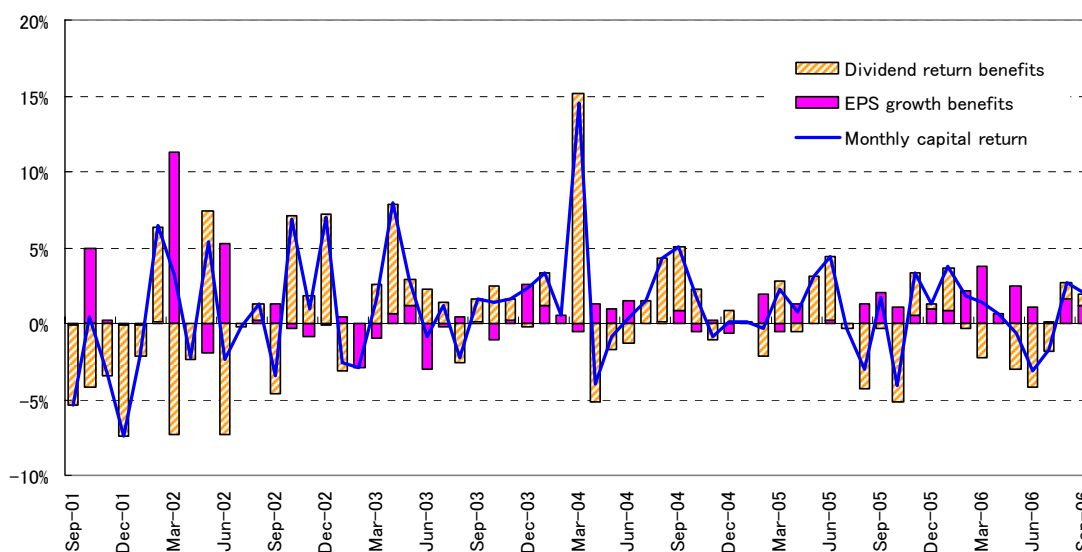
An analysis of the factors behind the growth in the dividends of each J-REIT to date reveals changes in the environment surrounding J-REITs. Until around 2003, the real estate market and in particular the office market were slumping due to the year 2003 problem. The offices owned by J-REITs were also seeing a gradual drop in rental revenues continue and the market was highly evaluating management that restricted the risk of rental revenues dropping by concluding long-term rent contracts with highly credible tenants. However, they were able to maintain and grow the level of distributions through external growth achieved by the additional acquisition of properties that took advantage of the strong fund procurement environment in both equity and debt. During this period, the investment monitoring centered on the appropriateness of the risk that rental revenues would decline and of the Cap rates on properties being additionally acquired.

With the recovery of the real estate market commencing in 2005, the drop in occupancies and rents bottomed out and rebounded, centered on offices, and the market environment became such that a growth in distribution could be expected through internal growth represented by the growth in rental revenues of properties owned. On the other hand, differences in the management abilities in line with changes in the external environment became distinct among the issues such as shifting to a

conservative debt structure to handle fears concerning interest rate hikes and decelerating external growth due to the rise in real estate prices and unique approaches to obtaining properties. Presently, an important subject for monitoring investments is future growth of rental revenues generated by portfolio assets and the balance of the increase in interest payments caused by interest rate hikes.

This emerging change in the source of J-REIT income that reflects changes in the real estate market has also taken shape in the valuation by the market. As indicated in the next figure, an analysis of the monthly total return for the overall J-REIT sector by interest factor and profit growth factor reveals that the contribution of profit growth factors has expanded since 2005 (Figure 2). To put this a little simply, the market has changed from a market expansion resulting from a drop in the risk premium configuring the expected return to a market with expectations for distribution growth.

Figure 2 Contribution by Factor to Monthly J-REIT Total Returns



Source: STB Research Institute

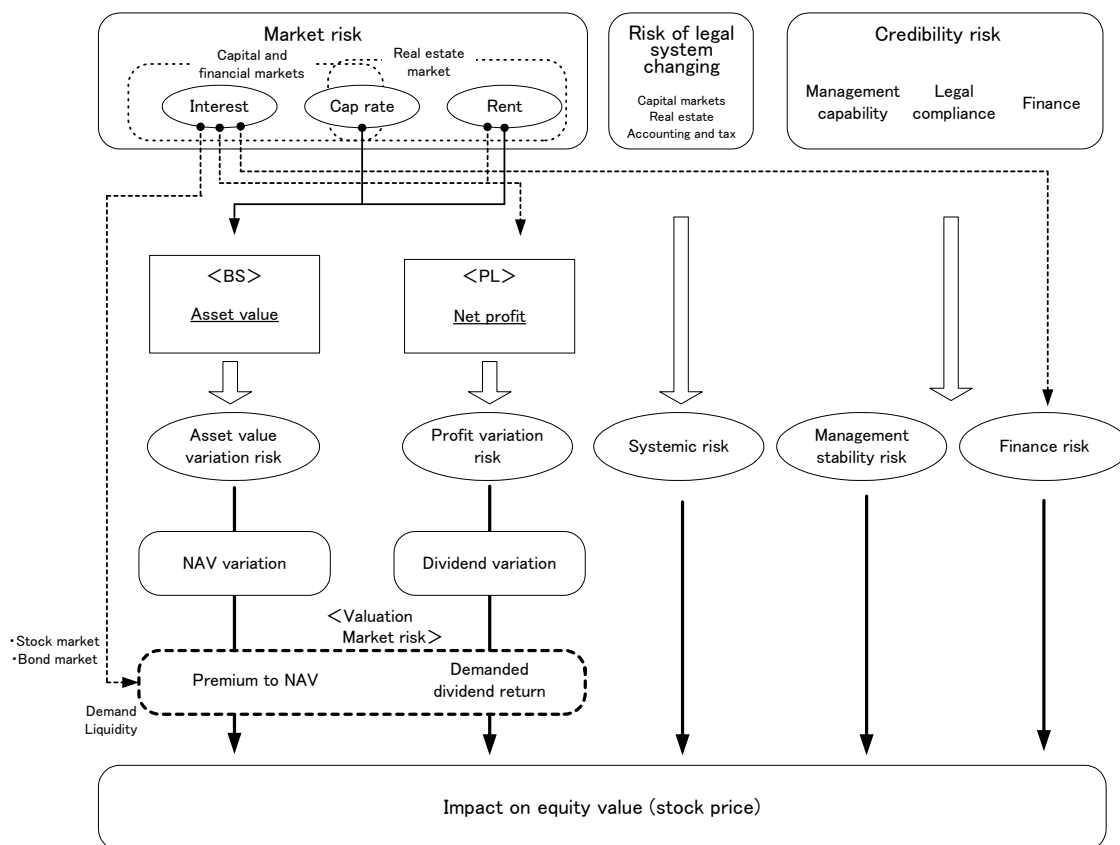
4. Risks accompanying J-REIT Investment

Within the growing market size, there has been a diversification in the quality of managed real estate, emerging differences in financial strategies and greater

polarization of the market value in correlation with the increase in the number of issues. Furthermore, there were changes in the external environment including a review of the legal system and the globalization of REITs and the risk in J-REIT investment diversified and institutional investors have begun to take steps in preparation for the growing sophistication of risk management to handle this.

When risks associated with J-REIT investment are organized by sources according to the perspective of risk management, the primary risks are identical to those of other financial products: market risk, credit risk and legal system risk. Market risk can be further divided into the real estate market risk of the underlying asset and the market risk of the listed product while the credit risk can be divided into the stability and credibility of the management firm and the financial management strength. These risk factors directly or via valuations of the return, etc. cause the investment share price to vary (Figure 3).

Figure 3 Primary Risk Factors of J-REIT Investment



Source: STB Research Institute

There are two characteristics of note within these risk factors. First, the speed differs for each risk factor regarding the speed from occurrence of the risk phenomenon to inclusion of it in the market valuation. Changes in interest rates, orders from the government concerning the management system and such immediately change the market valuation. On the other hand, real estate market rents and cap rates are inertia changes and their inclusion in the market valuation is gradual but in fact occurs prior to the future change. The second of these in the end changes the value following the constant combination of multiple risk factors. There are even assumable cases where the suppression of individual risks will not be consistent as a whole. Therefore, it is important to not just manage individual risks but to comprehensively grasp the risks and make the valuation.

5. Method for Managing J-REIT Investment Risk

1) Clarification of investment management policy

This is a basic matter but the most important thing is to clarify the aim and positioning of the J-REIT investment. In other words, should an enhanced return as a alternative to bonds be expected, should a rather large total return be expected based on certain risk taking as equity, or should risk dispersion effects be expected by utilizing the low level of correlation to stocks and bonds. This difference in management policy will lead to the selection of different issues to invest in and the approach to investing in new listed issues will also differ. In risk management, also, even with common risk indices the area of emphasis, the monitoring frequency, etc. will differ.

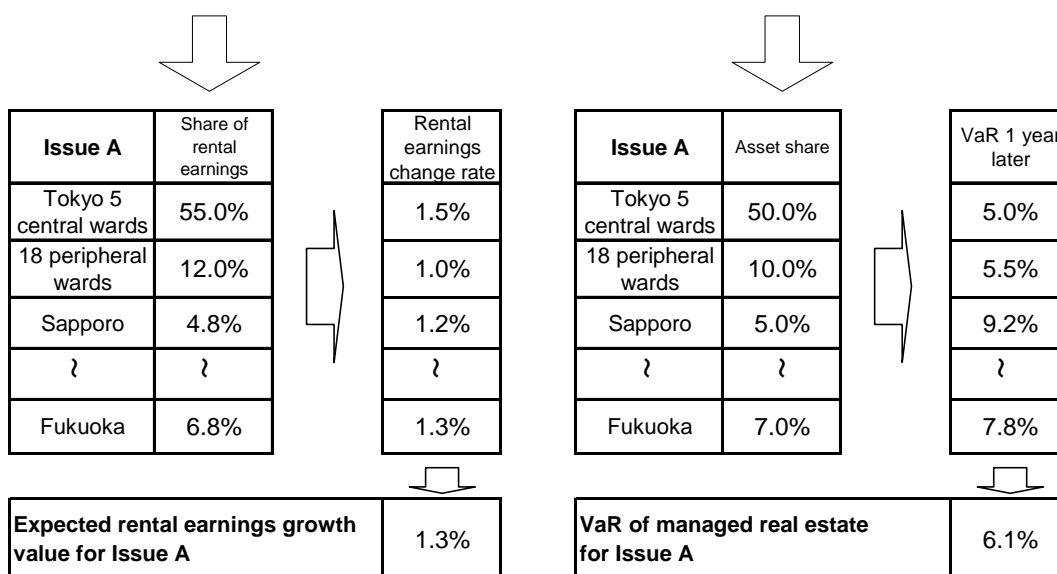
2) Management of the market risk for the underlying asset of real estate

The following is an overview of the quantitative understanding and risk management methods solely for the market risk of real estate, the underlying asset. As mentioned before, the J-REIT market reacts in advance to changes or signs of changes in the real estate market. Conversely, the valuation of the J-REIT market in the capital market has begun to form an inter-market relationship that impacts the real estate investment market in actual real estate. The following are the three keys to the methods for understanding and managing real estate risks before the other various kinds of risk.

First, real estate market risk must be divided into and managed as the risk of variations of rental income directly linked to changes in distributions and the management of the risk of variation to asset value. Secondly, the risk needs to be measured and quantitatively managed. Unlike other financial products, there is not always enough data for a quantitative analysis, but the future rent of real estate and future asset value are expected to change within a certain range that has the last term's level as its starting point and risk measurement is judged to be possible because of the high level to which these rents and values are predictable. It is also important to recognize the limits of quantitative valuation and to qualitatively analyze the real estate market as a means to supplement the quantitative management. Thirdly, J-REITs already own more than 1,200 buildings and so risk management based on individual properties is not realistic. Therefore it is effective to conduct risk management in submarket units by property type and area. Specifically, the variation risk for rental earnings and asset valuation are measured for each submarket and a risk level table is then created. Using this table, it is possible to easily measure the risk levels of each issue based on the composition of their real estate portfolios (by type and area; Figure 4).

Figure 4 Image of the Risk Table and Risk Measurement Method by Issue (all numbers are dummy figures)

<Residence>	Tokyo 5 central wards	18 peripheral wards	Sapporo	~	Fukuoka
Rent change rate (expected value)	2.5%	2.2%	0.0%		1.5%
<Office>	Tokyo 5 central wards	18 peripheral wards	Sapporo	~	Fukuoka
Cap rate (expected value)	2.5%	2.2%	0.0%	~	1.5%
Asset value change rate (expected value)	1.5%	1.0%	1.2%	~	1.3%
Basic VaR	-4.0%	-3.0%	-2.0%	~	-2.5%
VaR 1 year later	5.5%	4.5%	2.0%	~	3.0%
Basic VaR	10.0%	9.0%	12.0%	~	11.0%
VaR 1 year later	5.0%	5.5%	9.2%	~	7.8%



Source: STB Research Institute

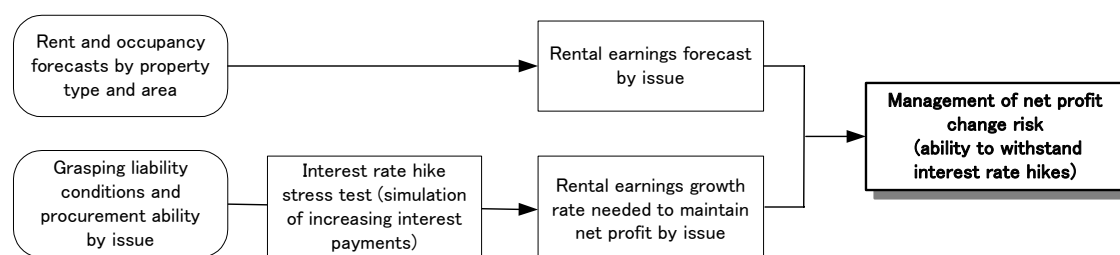
1) Thinking concerning management of change risk for rental earnings

The rents are forecast by type and area using multivariable analysis and the future growth of real estate rental earnings can then be forecast by issue. Developing this

forecast model has the advantage of not just generating values as forecast results but also indicates the primary factors for foreseeing the future of the rental market via explanatory variables included in the model.

Next, the interest payment increase amount caused by interest rate hikes is simulated based on the liabilities of each issue (borrowing terms of interest-bearing liabilities, borrowed amount, repayment period, estimated spread for the base rate, etc.). This is used to then calculate the growth rate in rental earnings needed to maintain net profit and the net profit change (distribution change) risk can be grasped by comparing the results to the forecast rental earnings value for each issue (Figure 5). For example, hypothesize that it is assumed that the interest base rate for Issue A is going to rise 50bp over the next year, the rental return growth rate needed to maintain the net profit is calculated to be 2.2%. If the expected rental earnings growth rate value for Issue A calculated from the risk table based on the analyses and forecasts of the real estate market is 1.3%, then the valuation would be that it cannot withstand the assumed interest rate hikes. This means that it is necessary to recognize the risk of distributions decreasing when interest rates rise in the case of Issue A and the key points when monitoring the issue here out are that whether financial management including fixing interest rates in the future, measures to reinforce internal growth and such are being accurately implemented.

Figure 5 Measurement Flow for the Net Profit Change Risk of Each Issue



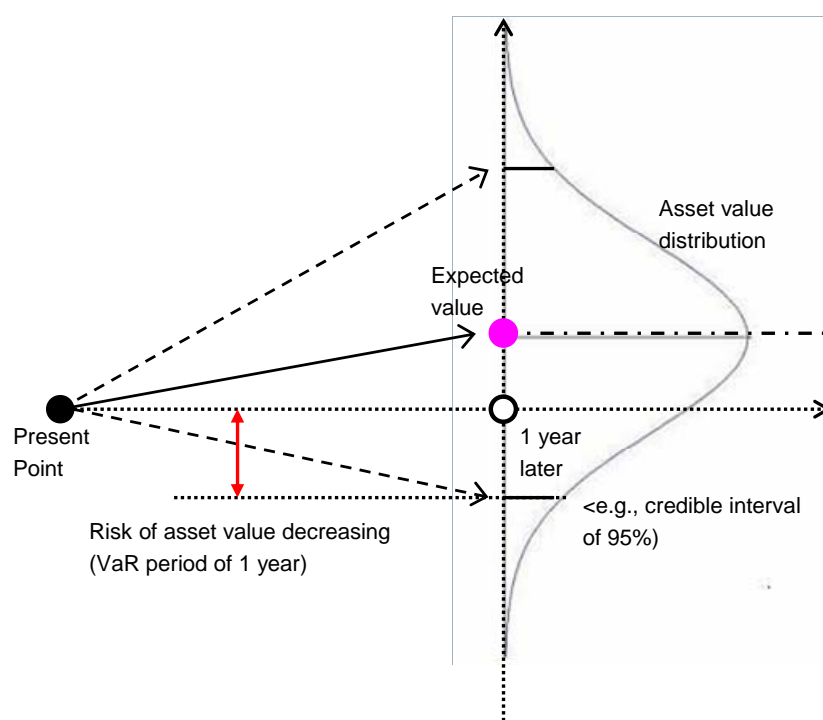
Source: STB Research Institute

2) Thinking concerning management of change risk for asset values

It is possible to value the risk of the asset value decreasing by doing the following. First use the VaR calculated from the measured asset value volatility arrived at using

past market data by type and area as the basic risk value and then use the model to forecast the future asset value and reflect this expected value. Specifically, the disparity between the maximum decreased asset value in a certain credible interval (for example, 95%) from the expected value (forecast value) of the asset value in one year and the present asset value can be measured as the future risk of the asset value decreasing. (Figure 6)

Figure 6 Thinking concerning the measurement of the risk of real estate value decreasing



Source: STB Research Institute

According to the results of our analysis, the basic risk level for the asset value changing calculated using past market data indicated this risk was smaller for residences than for offices, but greater growth is foreseen for offices with regards to the expected asset value in 1 year. Therefore, the final VaR when these two are combined has the office risk being smaller. The combination of basic risk levels from past data and future expected values can be used as a risk indices that adds a certain degree of change to the future market direction forecast by market participants.

The results tabulated for individual issues using these methods express the earnings change risk and the asset value change risk when focused on the underlying asset. By compiling the risk levels of issues you invest weighted by market value, you can measure the risk level of the overall J-REIT portfolio that you manage and risk management becomes possible by comparing this to the J-REIT market portfolio or by grasping changes in the risk level when the shares of issues in your portfolio are changed.

6. The Urgency of Preparing a Risk Management Platform

This report focused on real estate asset risk, the foundation for valuing J-REIT investments, and presented proposed measurement and management methods. Comprehensive risk management naturally needs to consider supply, demand and valuation (expected return, etc.) changes as market variables. However, as for J-REITs with a simple structure, the greater priority is to manage the fundamental real estate business risk. This approach aligns one's perspective with the J-REIT manager and has the advantage of making it easier to foresee future management choices for each issue. In other words, it becomes possible to discern issues with a high degree of management freedom regarding property acquisition, capital procurement, etc. and those issues with limited management freedom. Signs of this have already begun to appear but issues will emerge where the market valuation continues to take a severe view due to a lack of methods for future growth. The J-REIT market will probably continue to grow but it is an urgent task for institutional investors to build a management system that can achieve targeted returns with appropriate risk management.

*This report is a slightly edited version of the report appearing in the November 2006 Issue of [Regional Banking](#) (published by the Second association of Regional Banks).

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