



2006

Japan Real Estate Investment

REVIEW

NOMURA REAL ESTATE Development Co., Ltd

Contents

I. The Apartment Sector in the United States

Implications for the Japanese Market..... 2

1. Introduction..... 2

2. Apartment REIT sector in the United States 3

3. Investment Strategies of Two Representative US Apartment REITs 10

4. Analysis of Long-term Returns in the US Real Estate Market..... 15

5. Comparison of Apartment Sector Fundamentals in the US and Japan..... 17

6. Market Data 21

7. Implications for Apartment REITs in Japan..... 26

. Market Watch 29

1. Newly Constructed Condo Market 29

2. Secondary Condo Market 31

3. Rental Condo Market..... 33

4. Office Market..... 34

5. Hotel Market..... 35

6. Logistics Market 35

I. The Apartment Sector in the United States Implications for the Japanese Market

1. Introduction

As soon as Nippon Residential Investment (NRI) became a listed company in March 2004, a whole flock of other apartment REITs followed suit (See Note 1)¹. These included New City Residence Investment Corporation (NCR), Japan Single Residence Inc. (JSR), FC Residential Investment Corporation (FCR), Advance Residence Investment Corporation (ADR), Starts Proceed Investment Corporation (SPI), BLife Investment Corporation (BLI), Re-plus Residential Investment, Inc. (RRI), and Nippon Accommodation Fund Inc. (NAF). Although this large increase in the number of apartment REITs has had the positive effect of helping to expand the overall REIT market in this country, so far as the individual companies are concerned, however, it appears that sooner or later the weaker players will have to be weeded out.

At present Japanese apartment REITs are rather unpopular, and as of July 10, 2006 the stock price of all the REITs except for Nippon Residential (NRI) were below their initial offer prices at the time of their listing. This is in stark contrast to office sector REITs, which have been rated highly by the markets since the economy entered its recovery phase. Negative factors influencing apartment REITs include 1) limited potential for internal growth, 2) expectations of a worsening in the investment climate for leased apartment properties, 3) worsening of the supply and demand balance for apartment REITs, 4) the recent scandal involving falsified earthquake resistance calculation, and 5) the difficulty in differentiating between the various companies.

On the other hand, some generally positive factors influencing this market are 1) properties owned by REITs tend to be highly competitive, 2) distribution of the income stream among multiple tenants and multiple properties improves stability, 3) they can be relatively easily be incorporated as part of an external growth strategy. Nevertheless, these factors have not helped to boost REIT share prices.

The development of the rental housing market in Japan has been restricted by factors such as the Land and House Rental Law, government policies promoting home ownership, traditional employer-provided dormitory and housing systems, the absence of well-established investment modalities, a lack of participation on the part of pension funds and institutional investors, and a widespread belief in the myth that land prices will never fall. As a result, supply of new rental housing has been limited to one-room studio condos for young people, luxury condominiums for foreigners, rental apartments and condominiums managed by landowners as a means of avoiding inheritance taxes, and publicly managed apartments constructed by public corporations in order to assure an adequate supply of available housing. Against this background, the full-scale entry of capital from large private companies and capable venture firms didn't begin until 2001, when the REIT market was first organized in Japan.

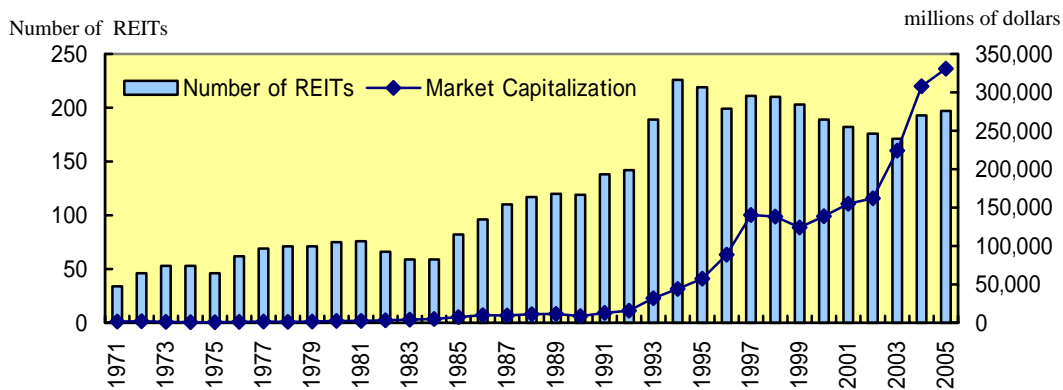
¹ Note 1: Among these apartment REITS only Nippon Residential Investment (NRI), Advance Residence Investment Corporation (ADR), and Re-plus Residential Investment, Inc. (RRI) specialize exclusively in rental apartments. The other housing-related REITs include, in addition to apartments, company housing, service apartments, and hotels or retail facilities that provide accommodations.

The United States was the first country to introduce securitization as a means of promoting liquidity in its real estate markets, and when we consider the length of its experience with apartment investment markets it is clear that any attempt to forecast future trends in the Japanese apartment market should begin with a careful analysis of the US apartment sector. There are many areas of difference between the two countries in terms of legal and tax systems, demographics, urban design, and market players, but the globalization of the economy and the establishment of REIT markets in different countries around the world gives us reason to believe that a study of the US market will reveal fundamental similarities that will help us to predict the future course of development of the market in Japan.

2. Apartment REIT sector in the United States

The REIT market was first established in the United States in 1961, so it has a track record of over 40 years. It was only in 1993, however, that the market really began to expand in earnest (Figure. 1). Between 1992 and 1993 the total market capitalization of apartment REITs in the US grew from \$15.9 billion to \$32.2 billion, and by 2005 the market had expanded another ten fold, to \$330.7 billion. For practical purposes, therefore, we will consider the history of US REITs to have begun 13 years ago in 1993. In Japan, on the other hand, the first REITs were established in 2001, but the market remained stagnant for several years until 2004 when the first specialized apartment REIT came onto the scene. After this the number of companies and the total market capitalization began to climb rapidly. In this sense we may consider that for all practical purposes the history of REITs in Japan began only two years ago, in 2004. Considering these facts we are going to put forth the hypothesis that “the apartment REIT market in Japan is likely to follow a similar path of development as that of the United States, but with a time lag of about 10 years.” We base our hypothesis on the observation that the US market passed through the stages of “financial deregulation, securitization, non-performing loan crisis, and finally expansion of the REIT market”, and that a similar pattern is now taking place in Japan following a several year time lag. We will keep this background in mind as we examine the US apartment sector.

Figure 1 Growth of the REIT market in the United States



Source: NAREIT

Table 1 Major Apartment REITs in the United States

COMPANY	Market Capitalization	Market share	Units	Properties	Ave. no. Units/ Property	Ave. property price	Unit Price	Dividend Yield	PER
Equity Residential (EQR)	12,178	23.1%	197,404	926	213	17	80	6.2%	12.4x
Archstone-Smith Trust (ASN)	9,934	18.8%	86,930	257	338	44	130	4.1%	17.9x
AvalonBay Communities (AVB)	7,235	13.7%	45,474	158	288	33	115	3.2%	19.0x
Apartment Investment and Management Co. (AIV)	4,024	7.6%	209,923	956	220	11	50	4.3%	18.0x
United Dominion (UDR)	3,486	6.6%	74,875	256	292	21	72	4.4%	16.0x
Camden Property Trust (CPT)	3,367	6.4%	65,580	191	343	23	67	4.4%	15.2x
BRE Properties (BRE)	2,534	4.8%	24,442	85	288	30	104	3.6%	16.6x
Essex Property Trust (ESS)	2,280	4.3%	26,587	126	211	20	95	6.2%	13.5x
Home Properties (HME)	1,445	2.7%	47,002	158	297	21	71	5.1%	14.3x

(Data as of the end of December 2005)

Unit: millions of dollars

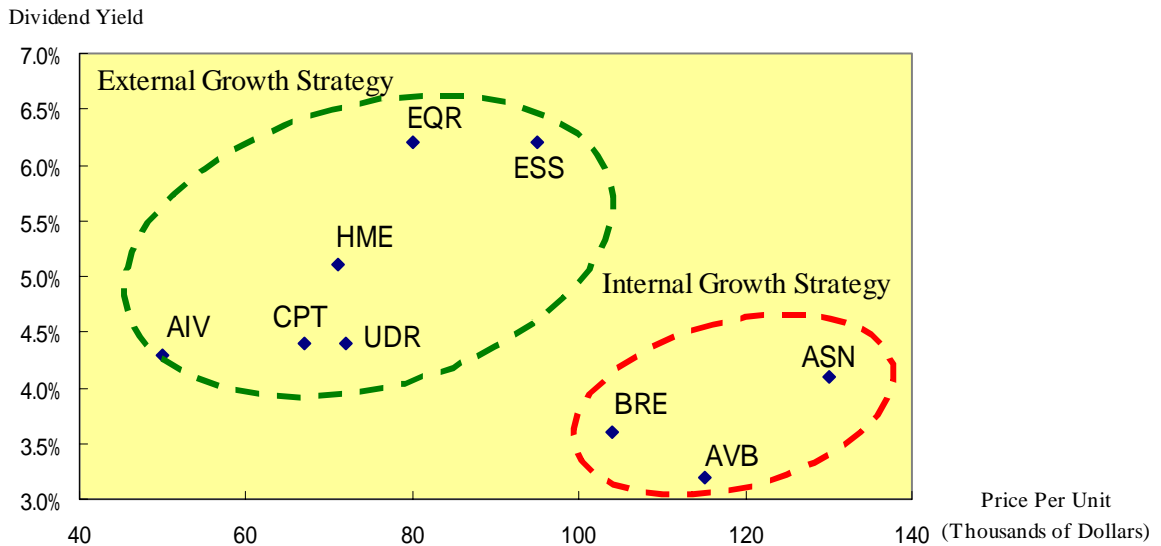
Unit: thousands of dollars

Source: Fact Set, NAREIT, SNL Financial, UBS, Green Street Advisors, Merrill Lynch

Major Apartment REITs in the United States

The leading apartment REITs in the United States are listed in Table 1. The average Market Capitalization of the top three players is 1.076 trillion yen, which is about ten times higher than that of the top apartment REIT in Japan. In terms of units under lease, the largest company, Apartment Investment and Management Co., and Equity Residential both have reached the 200,000 unit level, and this is about two orders of magnitude larger than the average Japanese REIT, which typically owns several thousand units. By property, the average number of units per property in the US is 277, whereas it is usually measured in the tens of units in the case of Japanese REITs, so it is clear that US apartment REITs tend to include many more large-scale properties as compared with Japan. As a result, the average cost per property in the US is quite large at 2.7 billion yen, while it is still only around 1~2 billion yen in Japan. The average cost per unit ranges from 14 million yen at Archstone-Smith Trust, which specializes in high-end luxury properties, down to the 5 million yen level at Apartment Investment, which has a portfolio that consists primarily of Class B and C properties. Considering that in the United States one-room studio apartments usually have about 50 m² in floor space, and 1LDK units generally have about 70 m², these prices are rather low compared with housing prices in Japan's metropolitan areas. Dividend yields show considerable variation even among the top players, ranging from a low of 3.2% to a high of 6.2%. Several REITs established by real estate developers, such as AvalonBay Communities (3.2%) and Archstone-Smith Trust (4.1%), have earned an excellent reputation because of their proven ability to successfully develop new high-end properties. What we mean here by "ability to successfully develop high-end properties" is the ability to identify properties in desirable locations where supply is constrained, to pay more for these properties than other companies do, and yet have the ability to create enough added value to command higher rents than the competition, or to sell at higher prices.

Figure 2 Strategic Positioning of Apartment REITs



Source: NRE

Strategic Positioning

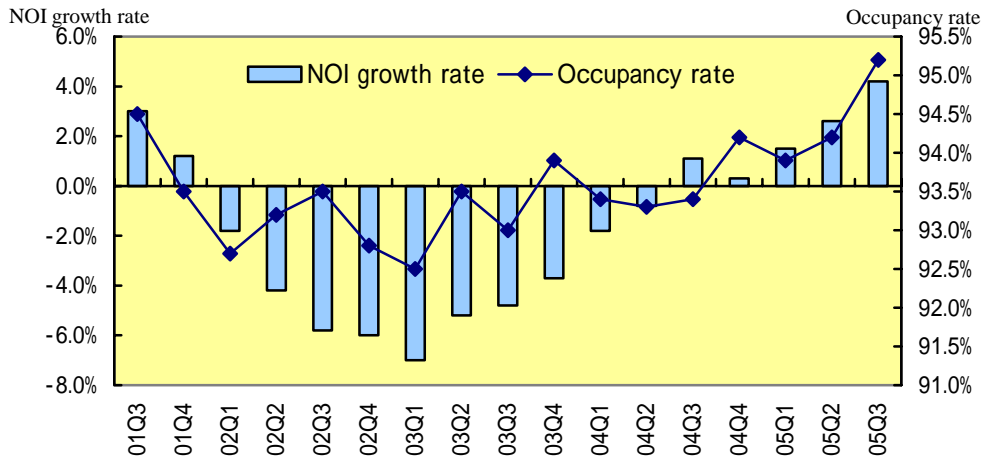
Strategic positioning of the major apartment REITs in the US is illustrated in Figure. 2. Here we have plotted the average price per unit on the horizontal axis, and dividend yields on the vertical axis. Companies with a higher average price per unit tend to be invested heavily in cities like Washington D.C. or Los Angeles where barriers to entry are relatively high, and where there is a high potential for internal growth. On the other hand, companies where the average price per unit is low generally concentrate their investments on relatively cheap properties in places like Phoenix or Houston where barriers to entry are low, but which have high potential for external growth.

As for dividend yields, lower dividend yields signify that the market has attached a premium to companies that have portfolios with strong internal growth potential. A lower dividend yield is an indirect indication that the company has adopted an internal growth strategy. Higher dividend yields, in contrast, are a sign that the portfolio includes many properties with little internal growth potential. Perhaps it would be better to say that high dividend yields indicate a strategic focus on external growth. Referring back to the Figure, the group at the lower right represents companies that have adopted an “internal growth strategy”, while the group at the upper left have opted for an “external growth strategy”. It is apparent that the question of whether to focus investments on properties with internal growth potential, or whether to place more emphasis on quantitative expansion as opposed to quality, represents an important strategic choice for apartment REITs in this market.

Net Operating Income (NOI) Growth Rates and Occupancy Rates

Net operating income (NOI) growth rates and occupancy rates for US apartment REITs between 2001 and 2005 are summarized in Figure 3. During the period after the 9/11 terrorist attacks, NOI growth was negative, reflecting the weakening in the US economy, but since 2004, NOI growth rates have returned to positive territory, boosted by higher occupancy rates and a recovering economy.

Figure 3 NOI Growth Rates and Occupancy Rates in US Apartment REITs



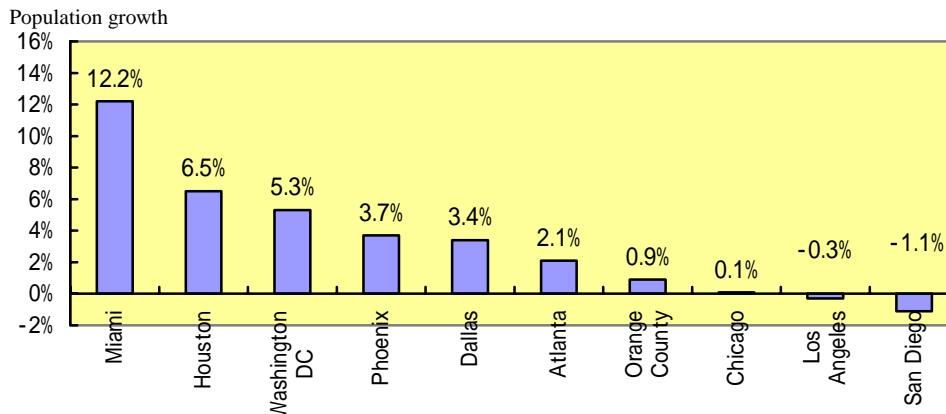
Source: UBS

Sub-areas

According to analyst reports published by Salomon Smith Barney Inc., UBS Securities, and others, about 20 cities in the United States are considered major sub markets. These sub areas may be divided into two distinct categories depending on whether the barriers to entry are high or low. Generally speaking, cities in the northeastern part of the United States have relatively high barriers to entry, potential for future population growth is limited, and real estate markets are stable. In contrast, southern cities tend to be characterized by high population growth, low barriers to entry, and large amounts of new supply, so the real estate markets tend to be more volatile than those in the north. Some of these low-barrier-to-entry sub-markets are southern or inland cities like Atlanta, Phoenix, Denver, Dallas, and Houston. On the other end of the spectrum, sub-markets with high barriers to entry tend to be densely populated cities on the east and west coasts, such as San Francisco, Washington D.C., Boston, Los Angeles, and San Diego.

Because tenants of rental housing in the US tend to be relatively young, demographic trends among the 20~29 year old cohort are an important factor to consider when analyzing sub-markets. Figure. 4 shows the rate of population growth for people aged 20~29 in major sub-markets. High growth rates are an indication of strong demand, and are an important investment criterion for REITs.

Figure 4 Population Growth Among the 20~29 Year Old Cohort



Source: Claritas, UBS

Table 2 REIT Concentration in Top Apartment Markets For 20~29 Year Olds

City	20 ~ 29 Cohort Population Growth	REIT GPRI*	REIT Concentration (Top three)		
Miami	12.2%	2.9%	AEC: 6.7%	ASN: 5.1%	EQR: 4.7%
Houston	6.5%	3.8%	AML: 10.0%	CPT: 10.0%	UDR: 5.9%
Washington DC	5.3%	9.4%	ASN: 35.3%	TCT: 25.5%	HME: 15.3%
Phoenix	3.7%	2.6%	BRE: 6.7%	EQR: 5.8%	CPT: 3.9%
Dallas	3.4%	5.4%	AML: 22.6%	PPS: 16.5%	CLP: 15.6%
Atlanta	2.1%	5.5%	PPS: 40.2%	AML: 19.3%	AEC: 10.0%
Orange County	0.9%	3.3%	BER: 14.8%	ESS: 11.5%	UDR: 8.8%
Chicago	0.1%	2.3%	AML: 10.3%	ASN: 5.3%	AIV: 4.7%
Los Angeles	-0.3%	4.1%	ESS: 21.7%	BRE: 8.3%	AIV: 6.8%
San Diego	-1.1%	3.0%	BRE: 19.0%	ESS: 10.8%	ASN: 5.0%

* Gross Potential Rental Impact (GPRI)

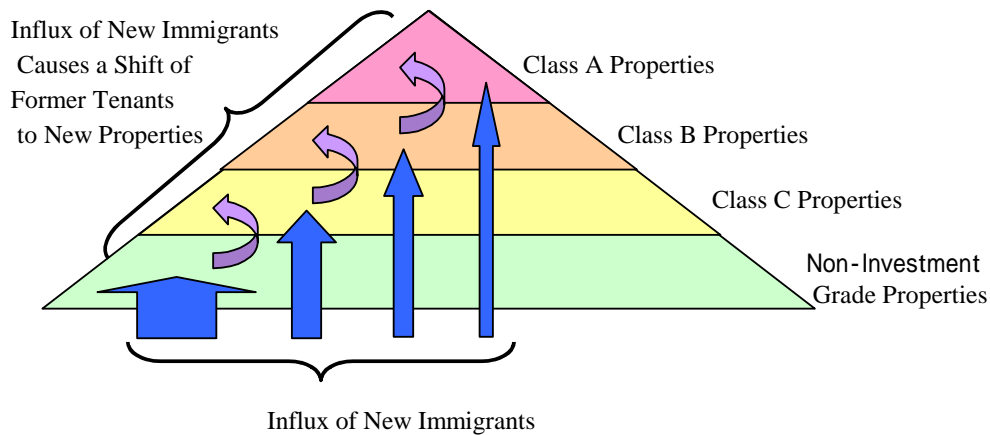
Source: Axiometrics, UBS

Table 2 shows REIT concentrations in various sub-markets with high population growth among people in their twenties. One striking result is the 35.3% concentration by Archstone-Smith (ASN) in properties located in the Washington DC area. Archstone-Smith is one of the highest-rated apartment REITs in the US, and one reason for this high rating is its concentration of investments in the Washington DC market, where barriers to entry are high (constrained supply), the population growth rate among the 20~29 year old cohort is increasing (strong demand), and rents are expected to rise in future.

Impact of immigration

Nearly 700,000 people immigrate to the United States each year, so immigration is another factor that significantly impacts apartment markets in the United States. The vast majority of new immigrants settle first in urban areas (Table 3). In 2003, for example, 10.3% (72,000) of all new immigrants to the US settled in New York City, followed by 9.2% (64,000) in Los Angeles, and about 4% each in Chicago and Washington DC. As one can see in Table 3, the highly rated AvalonBay Communities has concentrated its property assets in cities such as New York (10.9%), Los Angeles (6.8%), Boston (5.5%), and San Diego (13.0%) where immigration is very high. These are cities where new supply is constrained by a lack of available land for new development, but where market demand is growing because of the influx of new immigrants.

Figure 5 Impact of Immigration on the Luxury Property Market



Source: NRE

Figure 5 illustrates one way in which the influx of new immigrants can affect the luxury property market. One tends to think of immigrants as having low incomes and occupying non-investment grade rental housing. However, as immigration increases, occupancy rates and rents in these substandard properties will rise, and a certain percentage of those tenants who can afford to do so are likely to shift to Class C properties. The markets for different property classes are not completely independent, and the curved arrows in the Figure indicate this shift from non-investment grade housing to Class C properties. As occupancy rates and rents in these Class C properties are pushed up, Class B properties will be affected, and this wave will eventually reach the Class A market as well. This is one route by which immigration can influence the luxury property market.

One should also keep in mind, however, that a certain proportion of these new immigrants are skilled engineers, company owners and others who already have high incomes when they enter the country. This class of immigrant is represented in Figure.5 by the straight (vertical) arrows. These high-income immigrants represent a source of new demand for luxury housing, and can be expected to have a direct and immediate impact on the luxury housing market. In this way we can see that immigration tends to provide both direct and indirect support for the types of properties that are the target of investment by REITs. For this reason, as we saw in the case of markets with a high rate of population growth among the 20~29 year old cohort, markets with a high rate of immigration may also very attractive for investment by REITs.

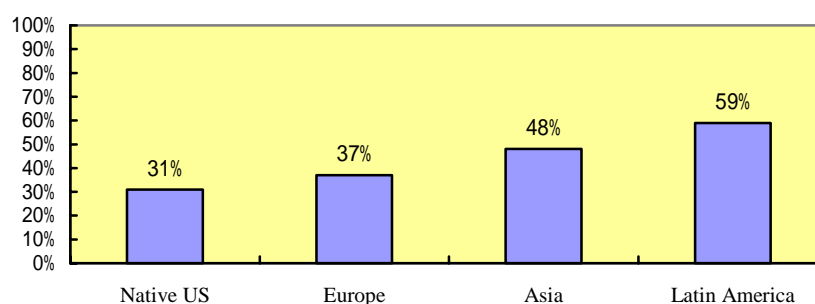
Table 3 REIT Concentration in Cities With High Rates of Immigration

City	Number of new immigrants in 2003	Percentage of total immigration in 2003	REIT GPRI *	REIT Concentration (Top three)		
New York	71,536	10.2%	1.6%	AVB: 10.9%	PPS: 4.4%	HME: 3.6%
Los Angeles	64,422	9.2%	4.1%	ESS: 21.7%	BRE: 8.3%	AVB: 6.8%
Chicago	29,815	4.2%	2.3%	AML: 10.3%	TCT: 5.3%	AIV: 4.7%
Washington DC	29,768	4.2%	9.4%	ASN: 35.3%	TCT: 25.5%	HME: 15.3%
Miami	21,047	3.0%	1.0%	CPT: 3.6%	AIV: 3.3%	EQR: 0.8%
Houston	15,357	2.2%	3.8%	AML: 10.0%	CPT: 10.0%	UDR: 5.9%
Orange County	15,167	2.2%	3.3%	BRE: 14.8%	ESS: 11.5%	UDR: 8.8%
Oakland	13,704	1.9%	1.9%	ESS: 9.1%	BRE: 7.9%	AVB: 4.0%
Boston	13,526	1.9%	1.3%	AVB: 5.5%	EQR: 3.0%	HME: 1.5%
San Diego	12,992	1.8%	2.1%	AVB: 13.0%	ESS: 10.1%	ASN: 3.5%

* Gross Potential Rental Impact (GPRI)

Source: U.S. Department of Homeland Security, Axiometrics, UBS

Figure 6 Rental Propensity Rate by Country of Origin



Source: U.S. Census Bureau

Approximately 40% of the people in both the United States and Japan live in rented housing, however the percentage for immigrants is higher than for native-born residents. This ratio also differs depending on the immigrants' country of nativity, and this is thought to reflect differences in economic status at the time of arrival (Figure6). According to the U.S. Census Bureau, the average annual household income for US-born citizens was 6.01 million yen, only slightly higher than that for immigrants at 5.87 million yen. However, there are 3.3 persons per household in immigrant families, which is 1.3 times higher than in native-born households. As a result, the per capita income in native-born households is 2.37 million yen, as compared with only 1.80 million yen in immigrant households.

Relevance to our analysis of Japanese apartment REITs

We will return to the analyses presented in this section, as well as to our hypothesis that “the apartment REIT market in Japan is likely to follow a similar path of development to that of the United States, but with a time lag of about 10 years” in the final section of this report, where we will present our forecasts of

future trends in the Japanese apartment REIT market. However, our general position is that the status of apartment REITs in the US in 1995 (Figure. 1) roughly corresponds to the status of apartment REITs in Japan in 2006. Although there will naturally be periods of stagnation in any market, we expect that this sector will experience significant growth over the long term. Although the overall impact of immigration is very limited in Japan, it tends to be concentrated in the major urban areas, and in this sense is expected to have a similar impact on markets in Japan as in the United States.

3. Investment Strategies of Two Representative US Apartment REITs

Before we attempt to discuss future trends in Japanese apartment REITs, we would like first to make a bottom-up analysis of two representative US-based apartment REITs. One of these will be Equity Residential (EQR), which is one of the largest apartment REITs in the US, and one that has adopted an “external growth” strategy. The other will be Archstone-Smith Trust (ASN), which is well known for its “internal growth” strategy. Archstone-Smith is reputed to have one of the best portfolios in the industry, with a high concentration of Class A properties in high growth areas.

Table 4 Two Representative US Apartment REITs

	Equity Residential (EQR)	Archstone-Smith Trust (ASN)
Date listed/ established	1993	2001
No. of properties owned	926	254
Market Capitalization	1,475.2 billion yen (2006/7)	1,137.3 billion yen (2006/7)
Remarks	Investment firm	Developer

* Figures calculated at the rate of 110 yen/dollar

* Source: U.S. Census Bureau

Equity Residential (EQR)

Equity Residential (EQR) is based in Chicago, Illinois and is presently the largest apartment REIT traded in the United States. It was founded in 1969, but was first listed as a REIT in 1993, at which time it raised 37.8 billion yen in investment capital (all figures are calculated at 110 yen/dollar). As of the end of December 2005, it owned 926 mostly Class B multi-family properties in 32 states, containing a total of 197,404 units. This is a classic example of an external growth model REIT. In size it accounts for nearly a quarter (23.1%) of the total market value of the apartment REIT sector as a whole. Because of its focus on quantity as opposed to quality, it has to pay a dividend yield of 6.2%, which represents a premium of 1.6% over the average dividend yield of 4.6% for the top 9 companies in the sector.

Table 5 The Equity Residential Portfolio

Sub-market	Contribution to NOI	Job Growth	Barriers to Entry
Atlanta	6.6%	High	Low
Phoenix	5.2%	High	Low
Boston	5.2%	Low	High
Seattle	4.9%	Medium	Medium
San Francisco	4.6%	Low	High
Dallas	4.6%	High	Low
Denver	4.0%	High	Low
Los Angeles	3.8%	Medium	Medium
San Diego	3.4%	Medium	Medium
Maryland suburbs	3.0%	High	Medium
Total	45.3%		

* Source: Salomon Smith Barney

The Equity Residential portfolio is characterized by its wide geographic distribution, and an investment allocation concentrated in areas where job growth is high (Table 5). Because of its external growth strategy, it is apparent that it has developed its portfolio by aggressively acquiring properties when conditions were favorable, regardless of sub-market. Markets where barriers to entry are low tend to be characterized by rather low rates of growth in NOI, (i.e. internal growth), because of the large amount of new supply. On the other hand, however, the large number of new housing developments in these areas makes them important markets for companies driven by external growth, both in terms of self-developed and pre-existing properties.

Equity Residential has increased its assets primarily through M&A activities. Since its listing in 1993 it has acquired more than 1.43 trillion yen of new properties. This represents a greater than ten-fold expansion compared with the 22,000 units it started with in 1993. A majority of its acquisitions took place in 1997 and 1998 when it acquired over 880 billion yen of assets through M&A activities. In addition to M&A activities it has also sought to expand its scale of operations through joint venture development projects. It has teamed up with Lincoln Properties, Legacy Partners and others to develop on-balance sheet properties. On the other hand, it also has an active capital recycling program. In 2001 it sold 61.2 billion yen of property and used those funds to invest in existing properties and development projects in areas with a higher potential for internal growth.

With regard to internal growth, since most of its investments are Class B properties the widespread geographical distribution of its portfolio enables it to avoid the large fluctuations experienced by REITs whose investments are concentrated in particular regions. This has allowed it to enjoy relatively stable internal growth. Since 1997 its same-property NOI growth has been right around the average level for the apartment REIT universe.

Archstone-Smith Trust (ASN)

Archstone-Smith Trust (ASN) is an apartment REIT with a total Market Capitalization of 1,137.3 billion yen. According to a research report by UBS Securities, the Archstone-Smith portfolio consists mainly of Class A properties that are very attractive both in terms of location and quality. ASN is a representative example of an “internal growth model” REIT. As of the end of March 2006 its portfolio consisted of 86,513 units in 254 buildings located in 14 different states. The properties were mostly high-rise buildings or garden-style communities. Its market share on a Market Capitalization basis is 18.8%, which makes it the second largest REIT in the US, and its dividend yield of 4.1% indicates that it enjoys a relatively high rating. We may categorize this as a REIT that emphasizes quality over quantity.

Table 6 Archstone-Smith Portfolio

Sub-market	% of NOI	Job growth	Demand/Supply
Washington DC	39%	3.0%	2.2%
Southern California	19%	0.8%	0.8%
San Francisco	8%	0.5%	0.3%
Chicago	6%	0.7%	0.4%
New York	5%	1.1%	1.2%
Boston	5%	1.0%	0.4%
Southeast Florida	5%	2.8%	2.3%
Seattle	3%	2.2%	1.4%
Weighted average.	(Total 90%)	1.9%	1.4%
Average for apartment REITs		1.8%	1.1%

* Source: Axiometrics, UBS Securities

The most distinguishing feature of Archstone-Smith’s portfolio is its concentration in sub-markets with high barriers to entry. Approximately 58% of its portfolio is concentrated in only two regions, Washington DC and southern California, as compared with Equity Residential, which has only 45% of its portfolio in the top ten sub markets. By investing primarily in existing luxury properties in large cities Archstone-Smith sacrifices the speed of external-type growth in favor of high internal growth.

Archstone-Smith started out as the El Paso Real Estate Investment Trust in 1963. In 1969 it changed its name to Property Trust of America (PTR), and in 1995 it merged with Security Capital Pacific, becoming Security Capital Pacific Trust, with properties in 6 western states and a portfolio valued at 187 billion yen.

Archstone-Smith has taken a unique approach to the rental apartment business, and has managed to distinguish itself from its peers through its use of advanced technologies, its brand power, and innovation. For example, it uses an online service called SafeRent to evaluate the credit risk of potential tenants. It also makes effective use of its proprietary Lease-Rent Optimizer (LRO). This yield management system calculates appropriate rent levels based on data on asking rents and occupancy rates determined from its

own real-time operating results, as well as input from local competitors. The Lease Rent Optimizer system is one reason that Archstone-Smith has been able to maintain an average occupancy rate of 95.7% since 1999. This is 1.3% higher than the industry average of 94.4% for apartment REITs. As a result, between 1999 and 2005 it posted annual NOI growth of 2.2%, which is 1.2% higher than the 1.0% average NOI for apartment REITs. The success of Archstone-Smith's internal growth strategy is due to the combined effects of several factors, including its strength in Class A properties, its policy of focusing on specific sub-markets, and the effective use of its Lease-Rent Optimizer system.

With regard to external growth, in 2004 it acquired ten properties worth a total of 95.2 billion yen, and in 2005 it made a bulk acquisition from Oakwood of 37 properties containing 13,500 units, for a total of 180 billion yen. It also has new development projects in its pipeline valued at another 180 billion yen that are scheduled to be completed by 2008. These include ten large-scale residential communities with 3,206 units for 97 billion yen. On the other hand, Archstone-Smith is also actively taking advantage of sales opportunities created by rising property values. In 2004 it generated 154 billion yen through the sale of properties that had limited potential for further growth, achieving an IRR of 13.8%, and it posted a profit on these sales of 40.9 billion yen. Archstone-Smith's policy of pursuing external growth by means of aggressive acquisitions (including development) and capital recycling is similar to that of other US Apartment REITs, but ASN has distinguished itself from its competitors by creating a portfolio with a high concentration of Class A properties in supply-constrained markets where barriers to entry are high.

Analysis of US Apartment REIT Investment Strategies

Equity Residential, with its external growth-based management strategy, and Archstone-Smith, with its internal growth-based management strategy, have adopted contrasting strategic approaches to achieving external and internal growth, respectively (Table 7). Equity Residential is pursuing a policy of expansion in scale, placing priority on capital market liquidity and external growth potential. Both in its acquisition of existing properties and in its own development projects, its focus is on expansion in scale rather than in quality, and as a result it is concentrating its investments in areas such as Atlanta and Phoenix where barriers to entry are low and where the housing market is growing rapidly. Although its stated goal is to use the proceeds from property sales to purchase new properties with superior internal growth potential, in most cases the best it can do is shift from low-growth-potential assets in areas where barriers to entry are low, to properties of closer to average quality. As a result, it has few properties in its portfolio with high internal growth potential, and its internal growth rate is about average for the apartment REIT industry.

Table7 Comparison of Growth Strategies Between EQR and ASN

		Equity Residential (EQR)	Archstone- Smith (ASN)
External growth strategy	M&A	Acquire cheap companies whenever the opportunity arises	Cooperative mergers between companies with luxury portfolios
	Acquire existing properties	Acquisitions that emphasize quantity	Acquisition of mostly luxury properties
	Acquire new developments	Development projects that emphasize quantity	Development projects that emphasize high-end quality
Internal growth strategy	Property sales	Recycle proceeds from property sales into higher growth properties	Use profits from property sales to finance new development projects
	Branding	Maintain an ordinary branding level for the industry	Aim to be the top brand and utilize the latest in IT
	Cost strategy	Improve efficiency through expansion in scale	Invest in order to offer a high level of services

* Source: NRE

The strategic approach of Archstone-Smith, on the other hand, is completely focused on achieving a high rate of internal growth by creating a portfolio of luxury properties in regional markets where the barriers to entry are high. When it comes to M&A, Archstone-Smith is not interested in acquiring companies that happen to be available at a discount. Rather, it has pursued expansion in scale through cooperative mergers with companies that had a similar focus on management of luxury properties. Its main emphasis is on quality rather than quantity, both in its acquisitions and in its own development projects, concentrating exclusively on luxury properties with high internal growth potential, located in supply-constrained markets with high barriers to entry. Further, it is aggressive in its use of proceeds from property sales to finance development projects. And one final feature of its internal growth strategy is its use of the latest in information technology (IT) to improve the quality of its services, and to reinforce its image as a top brand.

One thing that is clear when we compare these two representative US-based apartment REITs with their Japanese counterparts is that the former both have an aggressive capital recycling program. Both companies sell quite a large number of properties and use the proceeds to acquire new assets. Japanese REITs are at a much earlier stage of development, so expansion of the scale of their operations is still their top priority. Therefore, to date there have been few examples of Japanese REITs disposing of assets. However, in a mature market such as the United States, it is the norm for REITs to sell those properties in their portfolios that either have large unrealized capital gains, or which have limited potential for future growth, and to aggressively shift to new properties with superior growth potential. From a Japanese standpoint, we might compare this to the management approach of traditional asset management companies that buy and sell stocks and bonds on a daily basis as a matter of course. We expect that a similar situation will arise in the Japanese apartment REIT sector within the next ten years.

4. Analysis of Long-term Returns in the US Real Estate Market

To this point we have provided an overview of the apartment REIT sector in the United States, and discussed the contrasting growth strategies of two representative US-based apartment REITs. Next we will turn our attention to the characteristics of the returns generated by these investments. Apartment REITs in Japan have a rather negative reputation these days, but their lackluster performance at present may simply be a temporary phenomenon caused by trends in the business cycle. Therefore, we will analyze returns from real estate in the United States, where long-term data are available, in order to clarify the fundamental characteristics of returns from real estate investments, independent of the effects of the business cycle.

Figure 7 5-year, 10-year, and 25-year Returns in Major Market Sectors

Past 5 Years (2001~2005)

	Office	Apartment	Retail	Logistics
Total Return	9.2%	12.2%	16.1%	11.3%
Standard Deviation	6.6%	5.3%	6.3%	5.4%
Sharp Ratio	0.7	1.5	1.9	1.3

Past 10 Years (1996~2005)

	Office	Apartment	Retail	Logistics
Total Return	12.3%	12.5%	12.4%	12.8%
Standard Deviation	5.9%	3.6%	6.0%	4.1%
Sharp Ratio	1.2	2.1	1.2	1.9

Past 25 Years (1981~2005)

	Office	Apartment	Retail	Logistics
Total Return	7.7%	10.8%	10.3%	9.7%
Standard Deviation	8.2%	4.7%	6.1%	6.1%
Sharp Ratio	0.0	0.7	0.5	0.4

* Total Returns = Income Return + Capital Return

Source: NCREIF, NRE

* Sharpe Ratio = $\frac{\text{Return on Portfolio} - \text{Return on Risk-free Securities}}{\text{Standard Deviation of Return on Portfolio}}$

Figure 8 Performance of Real Estate Investments in the United States (1981~2005)



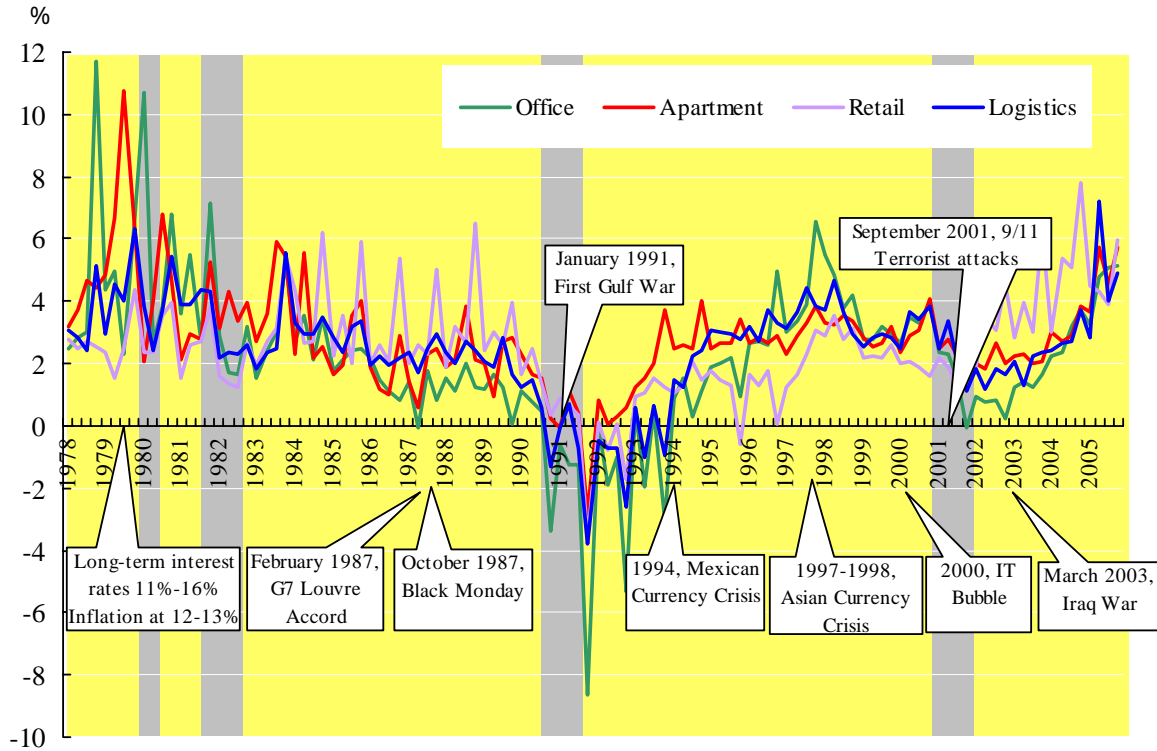
Source: NCREIF, NRE

Our analysis of long-term returns in the US real estate sector relies on data from the NCREIF (The National Council of Real Estate Investment Fiduciaries) Property Index. This is the oldest real estate index available and the one most widely used by institutional investors. NCREIF collects data from pension fund real estate investment managers and from member companies in each regional market in the United States, and for all types of investment-grade real estate (office, apartment, retail, logistics, hotels, etc.), and publishes its findings on a quarterly basis.

We analyzed this data over a 5-year, 10-year, and 25-year time frame for four major sectors of the US real estate market (office, apartment, retail, logistics) between 1981 and 2005. Our results showed that over a 25-year period the apartment sector outperformed all other sectors both in terms of total returns and Sharpe ratio. Moreover, the standard deviations, which are indicators of stability, were lowest in the apartment sector during each of the three periods examined. (Figure 7,8)

Looking more closely at performance over the past 25 years, total returns were 10.8% in the apartment sector, followed by 10.3% in the retail sector, 9.7% in the logistics sector, and 7.8% in the office sector. The standard deviation, which reflects the degree of fluctuation or investment risk, was lowest in the apartment sector at 4.7%, followed by 6.1% for retail and logistics facilities, and was highest in the office sector at 8.2%. Finally, the Sharpe ratio, which reflects the combined effect of the standard deviation and total returns, was again highest in the apartment sector at 0.7, followed by 0.5 for retail property, 0.4 for logistics, and 0.0 in the office sector.

Figure 9 US Real Estate Sub-Sector Returns (1978~2005)



* Indicates the total return for private funds in the United States

* Shaded areas indicate periods of economic recession as defined by the National Bureau of Economic Research (NBER)

* Source: NCREIF,NRE

Results by sub-sector over time are shown in Figure. 9. We should make a few comments about the real estate market in the United States during the 1978~2005 period, which overlaps the period of our overall analysis. First of all, the sharp increase around 1979~1980 reflects the high capital returns generated by rising commodity prices at the time of the so-called second oil shock. The large drop in 1991~1992 was due to strong downward pressure on real estate prices as the result of bulk sales of mortgaged real estate by the Resolution Trust Corporation (RTC) as it dealt with the non-performing loans that had caused the collapse of many Savings and Loan Associations (S&L) in the US. And lastly, with regard to the sharp increase in returns since 2003, this reflects the rise in residential property values that has played such an important role in the recovery of the US economy, a fact that has often been reported in the media. The data show other periods of relatively higher or lower returns, but compared with other investment vehicles such as stocks and bonds, the results demonstrate that real estate represents a medium risk, medium return investment.

5. Comparison of Apartment Sector Fundamentals in the US and Japan

In the previous section, “Analysis of Long-term Returns in the US Real Estate Market”, we showed that over the long term the apartment sector is attractive both in terms of total returns and the Sharpe ratio. We believe that the same principle applies in Japan, and that over the long term Japanese apartment REITs

will generate higher total returns than REITs specializing in the Office, Retail, Logistics or other sectors. In this section we will examine the most common objection to this hypothesis, namely that “the US and Japan are different markets, so it is unreasonable to assume that the same phenomena will occur in Japan as have occurred in the United States.”

To refute this argument, our first approach will be to make a quantitative analysis of the differences between the US and Japanese markets. The objection that “the US and Japan are different markets” is clearly based on the fact that certain fundamentals affecting the apartment sectors in the two countries are quite different. Generally speaking, six major areas of difference are often cited.

- (1) Most Japanese cities have subway or other mass-transit systems, so rental housing is concentrated around these subway stations. The US, on the other hand, is a car-based society, so housing is developed on the assumption that people will commute 30~60 minutes each day by car on highway systems.
- (2) Most rental housing in Japan consists of high-rise apartment buildings of 5 or more floors, whereas in the United States garden-type housing complexes less than 4 floors high are the norm.
- (3) Because of the nature of the Japanese social structure, Japanese apartment REIT portfolios contain few family-type units, but rather concentrate primarily on studio or compact-type units. In contrast, portfolios in the U.S. contain a high percentage of family-type 1DK and 2DK units.
- (4) The gap between the rich and the poor is rather wide in the US, particularly because of the effects of immigration. The vast majority of Japanese, however, identify themselves as part of the middle class, so the gap between rich and poor is relatively narrow.
- (5) In terms of demographics, immigration will continue to swell the overall population and stimulate household formation in the US. In Japan, however, although the number of households will continue to grow for some time in the large cities, the population as a whole is going to shrink.
- (6) The investment market for leased housing is mature in the US thanks to its long experience with REITs and private investment funds. In Japan, on the other hand, the market is still in the very early stages of development, with the first J-REITs having appeared only in 2001.

Table 8 Comparison of Apartment Sector Fundamentals in the US and Japan

	Japan	United States
Transportation Infrastructure	Subways	Automobiles
Structural type of leased housing	High-rise type	Garden type
Most marketed format	One room studios	1LDK ~ 2LDK
Wealth gap	Middle class society	Large wealth gap
Population trends	Shrinking	Growing
Investment market for leased housing	Initial stage	Mature stage

* Source: NRE

When we look more closely at the above objections, however, it is our view that factors (1)~(3) should have no effect on returns. These differences reflect differences in development opportunities and housing preferences. In the end, however, the return on investment is determined by supply and demand, and the question of whether the rental housing is available in the form of high-rise buildings as opposed to garden-type communities, or whether the units are one-room studios or 1~2DK family apartments, has a minimal effect on the relationship between supply and demand, particularly as compared with the supply and demand relationship in office, retail or logistics properties. For example, demand for office space is far more sensitive to economic trends than demand for housing. During periods of economic expansion companies quickly increase their hiring, and it is not unusual for firms to double or even triple the number of their employees in a short period of time. By the same token, economic recessions can lead to bankruptcies and layoffs, with the result that employee numbers may rapidly be cut to one half or one third of previous levels.

We also believe the issue of economic disparity (4) to be irrelevant so far as returns are concerned. It may be true that in the United States, rental housing of one sort or another is supplied to a wide range of economic strata, from the extremely wealthy to the very poor, while in Japan housing may be supplied primarily to the middle class. Although the poor are more likely to be affected during periods of economic recession, they will only choose to become homeless as a last resort, so demand in the apartment sector may be expected to fluctuate far less than in the office sector.

We believe that demographic differences (5), in terms of the fact that the population is rising in the US market but falling in the Japanese market, are offset by differences between the two countries in the quality of the available housing stock, so we do not expect this factor to materially influence returns. Compared with the United States, the quality of the apartment inventory in Japan is rather low, and from the standpoint of floor space and basic amenities a large number of buildings will need to be replaced during the next 20-30 years. This is because many rental apartments on the market today are wooden structures built after World War II, a time when Japan was still a poor country. In contrast, no wars were fought on mainland US during the 20th century, and the US was an economic powerhouse after the end of the Second World War, accounting for 60% of the world's GDP at the time. As a result, many structures were built of concrete in the post-war period, and even those made from wood tend to be spacious, so that with a bit of remodeling most of these older buildings can continue to be used as housing. Therefore, although Japan's population is expected to shrink in the long term, the housing stock will also fall, maintaining a balance in the market. On the other hand, while the population is expected to grow in the US market, the housing stock remains large, so here again we expect the overall market balance to remain similar to that in Japan.

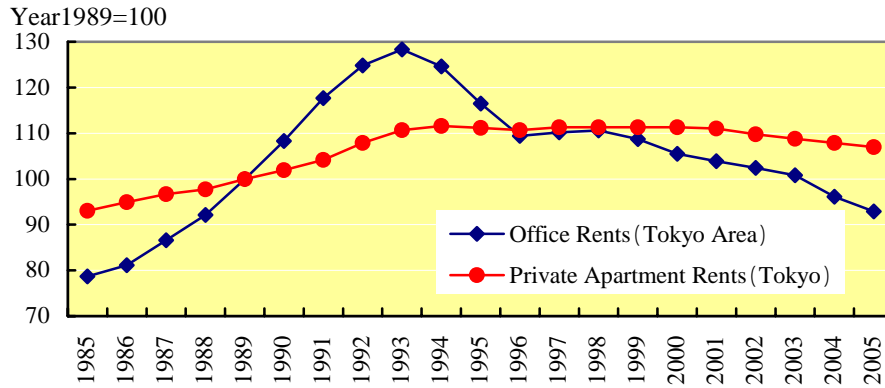
As regards the objection (6) that the US represents a mature market whereas the Japanese market is still at the initial stages of development, we don't believe that this factor will affect returns over the long term. The fact that the markets are at an early stage of development in Japan is attractive insofar as it indicates that the scale of the market is likely to expand rapidly in future. On the other hand, at this stage many new

players will enter the market, and it is likely that most of them will eventually be weeded out. So far as the Japanese apartment market is concerned, it is only in the past few years that major real estate companies with land development capabilities have entered the market in earnest. Within the J-REIT framework we expect that different niche markets will be studied, new markets will be tested, and that these markets will gradually stabilize after a certain period of trial and error. When we take into account the fact that in 5 or 10 years the market will become mature, leaving aside the question of strictly short-term profits, we believe that the most likely possibility is that the trend in long-term returns in Japan will follow the same pattern as that seen in the United States.

The second approach we will take to refute the above objections will rely on quantitative data to determine actual returns from the Japanese apartment sector. In our analysis of the US apartment sector we were able to determine income returns and capital returns because of data provided by NCRIF, but at present there are no equivalent sources of data for the Japanese market. Nevertheless, we believe that it should be possible to identify income return trends in a general way by analyzing rent levels, and capital return trends by examining changes in land prices. We therefore analyzed these trends using a 20-year database covering the period from 1985 through 2005.

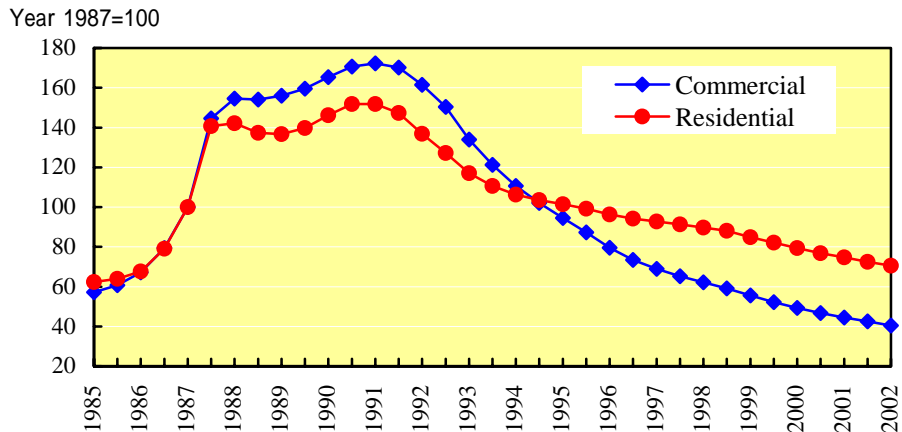
Examining changes in rent levels as an indicator of income returns, we found that rents in the office, sector rose sharply from 1985 to 1993 due to increased demand associated with an expanding economy (Figure. 10). Assuming that total income returns over the twenty years were the same in both the office and the apartment markets, we plotted the change over time in these respective sectors using 1989 levels as the standard (100). In the case of office space, rents peaked at about 30% above the 1989 standard value. Apartment rents, however, had only risen about 10% at the same point in time. Clearly housing demand did not increase as much as demand in other sectors. The same principle applied in reverse, however, during the period of declining rents that began after 1993. Office rents fell sharply, but housing rents showed little change. These results demonstrate that with regard to income returns, if the average levels are the same, the standard deviation, in other words the volatility, is much higher in the office sector than in apartments. Next we examined the change over time in land prices as an indicator of capital returns. A similar pattern was observed as with rents (Figure. 11). Prices of residential land were relatively stable, whereas prices of retail and other property located in office districts fluctuated widely. As a result, when we combine income and capital returns to obtain total returns, we find that the standard deviation for apartments is smaller, and when this is factored in, we expect that in the long term the Sharpe ratio will also be better in the apartment sector than in the office sector.

Figure 10 Changes in Rents in the Office and Apartment Sectors (Tokyo area)



* Source: “Annual Report on the Consumer Price Index” (General Administrative Agency of the Cabinet, and the Ministry of Internal Affairs and Communications); “Corporate Service Price Index” (Bank of Japan)

Figure 11 Changes in Commercial and Residential Land Prices (Tokyo Area)



* Source: “Indices of Urban Land Prices and Construction Cost of Wooden Houses in Japan” (Japan Real Estate Institute)

To summarize, we made both a qualitative and a quantitative analysis of the Japanese apartment sector in an effort to determine whether our conclusion, based on an analysis of the US apartment sector, that “long term returns are higher in the apartment sector” will apply to Japan or not. We demonstrated qualitatively that stability of housing supply is an intrinsic characteristic of this sector that transcends the differences in fundamentals between the markets in the two countries. Our quantitative analysis of rent levels and land prices also confirmed the stability of the rental apartment sector in Japan. These results clearly indicate that there is a very good possibility that long-term returns from the apartment sector may well outperform the other sectors in the real estate market in Japan.

6. Market Data

Since the establishment of apartment REITs in Japan in 2004, “Apartment REIT Analysts” have been hired by various securities companies, and as a result a variety of reports are starting to become available. However, basic market data on vacancy rates, average rents, and NOI growth is inadequate, so these analyses are still rather superficial. In the office market, building sizes tend to be large, and the number of

such buildings is limited, so brokers in this sector are making good progress in improving our understanding of market trends by providing data on supply and demand by sub-market, asking rents, vacancy rates and other factors. In contrast, average building sizes are small in the apartment sector, and compared with office buildings the number of properties in the market is extremely large, so it is much more difficult to get an accurate grasp of the overall market.

As the number of buildings operated by Japanese apartment REITs increases over time, however, we believe that basic data on the rental apartment sector will rapidly become available. In the relatively near future, as we gain access to this type of data, it will become possible to compare actual operating performance with average indices for the market as a whole, and differences in managerial talent will become clear. This will naturally lead to a sorting out in the industry as the winners are separated from the losers. We will discuss our forecasts of the future of the Japanese market in the following section, but first we would like to explain briefly how market data is being used in the apartment sector in the United States.

In the US, market data about vacancy rates, average rents, and NOI growth is available for each sub-market in the apartment sector. As we explained earlier in Section 2 of this report, apartment REITs in the US generally fall into one of two different categories depending on whether they have adopted an internal or an external growth strategy. Among REITs that have adopted an internal growth strategy, the most successful have been those with the capacity to develop their own luxury properties. On the other hand, the key to success among REITs that chose the external growth model has been M&A activities. Those REITs with superior management teams that have been able to maintain the high stock prices needed for successful mergers and acquisitions, and which have demonstrated their ability to achieve high same-property NOI growth under highly competitive market conditions, have continued to expand.

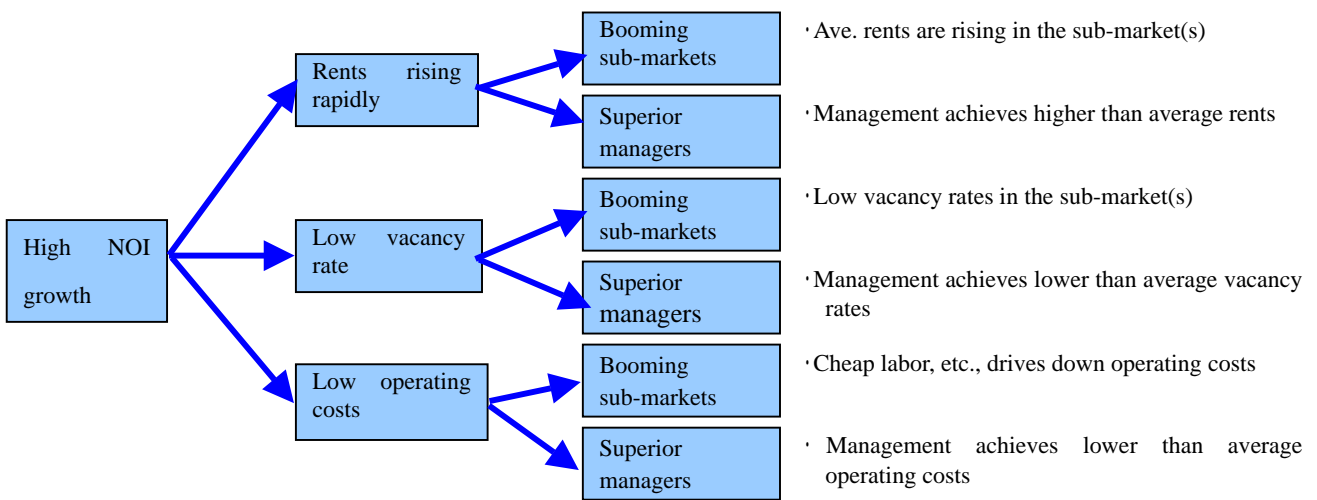
Sub-market analysis

An analysis of apartment REITs in the US begins with an evaluation of the relative attractiveness of 20 major sub-markets, followed by an examination of how each REIT has allocated its investments among these different sub-markets. REITs that have invested heavily in sub-markets with high growth potential and steep barriers to entry tend to be rated highly. In other words, the first step is to determine the regional investment strategy of each company. Next one looks at the vacancy rates, average rents, and NOI growth in each sub-market, and compares the performance of each REIT to the industry averages. By analyzing the performance of investments made in identical sub-markets, one can easily evaluate the relative abilities of different managers. In this way, an infrastructure has emerged in the United States that makes market data indices available, so that one can analyze the performance and identify the strengths and weaknesses of each REIT on the basis of a number of different quantitative factors.

For example, let us say that one particular company has a very high rate of NOI growth (Figure. 12). The reaction of the market will differ depending on whether this success is due to a strong allocation of investments in booming sub-markets, or to the ability of the management team to achieve superior results

as compared with the industry average. If the NOI growth is due primarily to the allocation of investments to growing sub-markets, this may in fact be a sign of poor management. Unless that REIT has the resources to continue acquiring properties in growing sub-markets, in other words, if the success it is enjoying is due to the fact that it was lucky enough to have acquired properties in thriving sub-markets, the market is likely to reach the conclusion that its future potential internal growth is likely to be less than that of other REITs. As a result, its rating will decline, and its stock price will fall. On the other hand, a superior manager will be able to improve performance and create favorable conditions for successful M&A activities. The point we wish to make here is that the availability of market data can have a very powerful influence on the management strategy of each REIT.

Figure 12 Conceptual Framework for Analyzing NOI

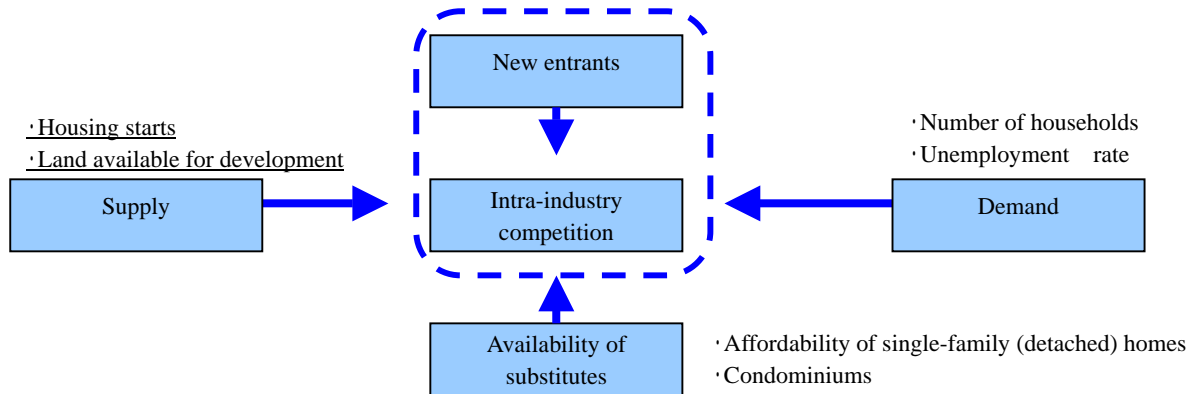


* Source: NRE

Analytical Framework

When examining the US apartment sector, nearly every analyst uses the same framework to study the various sub-markets. We believe that we can use this same analytical framework to predict future trends in Japanese apartment REITs. The framework used in the US to analyze apartment sector sub-markets generally consists of an examination of the following elements: (1) household formation, (2) unemployment rate, (3) new home affordability, and (4) housing starts. If we relate this framework to Michael Porter’s five forces model, household formation and unemployment rate represent demand forces, housing starts corresponds to supply forces, and affordability corresponds to “availability of substitute products”. Because barriers to entry are low in the rental apartment market, we find at present that large numbers of small and medium-sized enterprises are entering the market and competing together. Therefore this model ignores the “threat of new entrants” and “competition within the industry”.

Figure 13 Conceptual Framework for Sub-Market Analysis



* Source: NRE

Rate of increase in household formation

The rate of increase in household formation is a fundamental indicator of demand. New households are formed as the result of marriages, divorces, and children growing up and leaving home. Analysts in the United States have adopted a model which assumes that one out of five new households will live in rented housing. Population growth and household formation are also fundamental elements of market analysis in the case of Japanese apartment REITs, so this aspect of the above framework should apply to Japan just as it does in the US.

Unemployment rate

Unemployment rates are included as another indicator of demand. In certain cities or sub-markets in the United States companies may sometimes layoff several thousand workers at a time, so unemployment rates can have a significant impact on the apartment markets. For example, in 2002 Boeing laid off about 20,000 employees, and this had a serious impact on the rental housing market in Seattle, where the population numbered only 600,000.

Affordability of single-family homes

This factor is used to evaluate the influence of substitute products. Generally speaking, whenever a new household is formed, the members of that household will have to decide whether to live in rented housing or buy a home. In most US cities it is more common for people to purchase a detached house than a condominium-type residence, so detached houses (single-family homes) are used as the standard. “Affordability of single-family homes” is defined as the ratio of the loan payment required for the purchase of a median-sized house, to the size of the loan payment possible for a median-income household (Formula. 1). In 2001, for example, this ratio was 165% in Dallas, where it is relatively easy to purchase a home, but only 60% in San Francisco, where the price of land is relatively high.

Formula 1 Housing Affordability Index

$$\text{Housing Affordability} = \text{Median-income loan payment} / \text{Median-house loan repayment}$$

- *1 In order to eliminate the effect of exceptionally high-priced properties and high incomes, median values are used rather than simple averages. For example, if the average price of 100 homes sold was 50 million yen, but the median price, namely the price of the 50th most expensive home, was 40 million yen, the latter figure is used in the analysis.
- *2 This assumes a 20% down payment, 30-year mortgage, and the ability to spend 25% of annual household income on loan payments.
- *3 An affordability index of 100 indicates that there is a balance between annual income and housing prices (a family with a median annual income can afford to purchase a median-priced home). Values greater than 100 indicate markets where houses are relatively easy to purchase.

Housing starts

“Housing starts”, as an indicator of supply, is an index of how high the barriers to entry are in a given sub-market. In the United States it is often said that new supply is the “Achilles heel” of investment in real estate. Sub-markets where the number of new housing starts is low may be viewed as having high barriers to entry, and represent a part of the portfolio with the most stable performance characteristics. Therefore REITs that are heavily invested in these types of markets are rated very highly. When calculating the ratio of housing starts to total housing inventory, the trailing 4-quarter average is used to allow for comparisons of the impact of supply in different sub-markets, and to smooth out the effect of fluctuations in the timing of initiation of construction work.

The Japanese apartment market

We have explained in some detail the analytical methodologies generally used to study the apartment market in the United States. Next we would like to introduce a conceptual model for applying sub-market analysis to the Japanese apartment market. For example, one approach might be to divide the Tokyo metropolitan area into 10 different sub-markets, and study trends in new housing starts, etc. in each of these sub-markets. A recent example of where such an approach would have been useful is Chuo ward, where a large amount of new supply caused an increase in the vacancy rate. People working at the local level may have noticed the large number of new buildings going up and been aware of the risk of oversupply, but the lack of quantitative data made it difficult for investors to achieve a clear grasp of the situation. At the time no one knew which REITs were most heavily invested in that sub-market. In future, as we gain access to this type of market data, the various strategies adopted by different REITs will become known, and as soon as data is published that indicates an increase in the vacancy rate in a particular sub-market due to oversupply, it is quite likely that investors will move to sell their stock in REITs whose assets are concentrated in that area.

7. Implications for Apartment REITs in Japan

We would like to now summarize the main points of our above analysis, particularly as they relate to efforts to forecast future trends in the Japanese apartment REIT sector. As we review these main points, we will try to develop a conceptual model that will allow us to predict how the apartment REIT market will evolve in Japan over the next ten years.

Apartment REIT Sector in the United States

REITs have been part of the US market for over 40 years, but it wasn't until 1993 that they began growing in earnest, and in the 13 years since then the market capitalization of US apartment REITs has grown tenfold. In Japan, the REIT market was first established in 2001, but REITs didn't really begin to take off until 2004, and we expect that they will experience even further growth in future. US apartment REITs can be categorized according to their investment strategy as either internal growth type or external growth type. We believe that we will see a similar pattern develop in Japan as well, with some REITs concentrating their investments in high-end properties and strategic sub-markets in order to achieve a high rate of internal growth, and others deciding to focus on expansion in scale in order to achieve external growth.

Long-term Returns in the Apartment Sector

Using NCREIF data on the performance of private placement funds we analyzed the returns from four major real estate sectors: apartments, office, retail, and logistics. The results showed that in the long term (25 years) apartment outperformed all the other real estate sectors both in terms of total returns and in terms of the Sharpe ratio. Over a 5-year or 10-year period, however, retail and logistics-related properties performed best. Our qualitative and quantitative analyses strongly suggested that a similar trend will apply in the Japanese apartment sector. This is mainly because of the intrinsic stability of demand in the apartment sector as compared with other sectors, a characteristic that represents a significant advantage during periods of stagnant economic growth.

Market Data

One of the major differences between the apartment REIT sectors in the US and Japan has to do with the availability of market data. In the US data is readily available for each major sub-market with regard to vacancy rates, NOI growth, and demand/supply trends, and the performance of each REIT can easily be compared with the industry averages. This data makes it possible to compare the relative performance of investments in the same sub-markets, and to evaluate the relative skill levels of different managers. We believe that as the number of properties under management by apartment REITs increases, this type of basic market data will also be collected and made available in Japan. Therefore, in the relatively near future it will become possible to compare the performance of different REITs relative to industry averages for various indices, and differences between REITs in terms of management ability will become clear. We expect that the winners will emerge as weaker players are gradually eliminated.

Future of the Apartment REIT Market in Japan

Based on the results of our analysis, we have come up with the following forecast of what the apartment REIT market in Japan will look like in 2016, ten years from now, (see Table 9).

Table 9 Estimated Size of the Apartment REIT Market in Japan in Ten Years (2016)

	USA2005 (year 12)	Japan2016 (year 12)	Remarks
Size of overall REIT market	36.2 trillion yen	14.5 trillion yen	36.2 trillion yen x 40% = 14.5 trillion yen
Size of apartment REIT market	6.1 trillion yen	2.4 trillion yen	6.1 trillion yen x 40% = 2.4 trillion yen

	USA 2005	Japan 2005	Remarks
Population	270 million	120 million	120 million ÷ 270 million = 44%
GDP	1,340 trillion yen	500 trillion yen	500 trillion yen ÷ 1,340 trillion yen = 37%

* Source: NRE

In making this forecast we took advantage of the fact that the REIT markets are at different relative stages of maturity in the US and Japan. Using the present scale of the REIT market in the US as the standard, we calculated the ratios between the populations and GDPs of the two economies and used the average of this ratio to estimate the future size of the Japanese market. Because for practical purposes the REIT market in the US began to grow rapidly in 1993, 2005 represents the 12th year of its development. In Japan, rapid growth of the REIT market started in 2004, so the corresponding 12th year of its development will be 2016. Next, based on the population and GDP ratios, we estimated the relative size of the mature REIT markets using the following relationship:

$$\text{USA : Japan} = 100:40.$$

We multiplied the size of the US REIT market in 2005 by this ratio (40%) and came up with a figure of 14.5 trillion yen as the estimated size of the overall REIT market in Japan, and 2.4 trillion yen as the estimated size of the apartment REIT sector, in the year 2016. Since the present size of the Japanese REIT market in 2006 is 4.0 trillion yen, this represents an increase of 260% over the next 10 years. The present size of the apartment REIT sector is 0.3 trillion yen, so this model predicts growth of 800% during the same period. One reason that we believe apartment REITs will grow faster than the market as a whole is that most of the present market capitalization of Japanese REITs is accounted for by office sector REITs, which have expanded rather quickly, while apartments have lagged behind because average property sizes are so much smaller in this sector.

Table 10 Top Apartment REIT Players in Japan 10 Years From Now (2016)

	Market share	Market Capitalization (100million yen)	Average price per property (100million yen)	Unit price (10,000 yen)	Average units per property	Number of properties	Total units
No. 1 player	23%	5,520	15	2,500	60	368	22,080
No. 2 player	19%	4,560	15	2,500	60	304	18,242
No. 3 player	14%	3,360	15	2,500	60	224	13,440
No. 4 player	8%	1,920	15	2,500	60	128	7,680
No. 5 player	7%	1,680	15	2,500	60	112	6,720
No. 6 player	6%	1,440	15	2,500	60	96	5,760
No. 7 player	5%	1,200	15	2,500	60	80	4,800
No. 8 player	4%	960	15	2,500	60	64	3,840
No. 9 player	3%	720	15	2,500	60	48	2,880
No. 10 player	3%	720	15	2,500	60	48	2,880
Others	8%	1,920	15	2,500	60	128	7,680
	100%	24,000				1,600	96,000

* Source: NRE

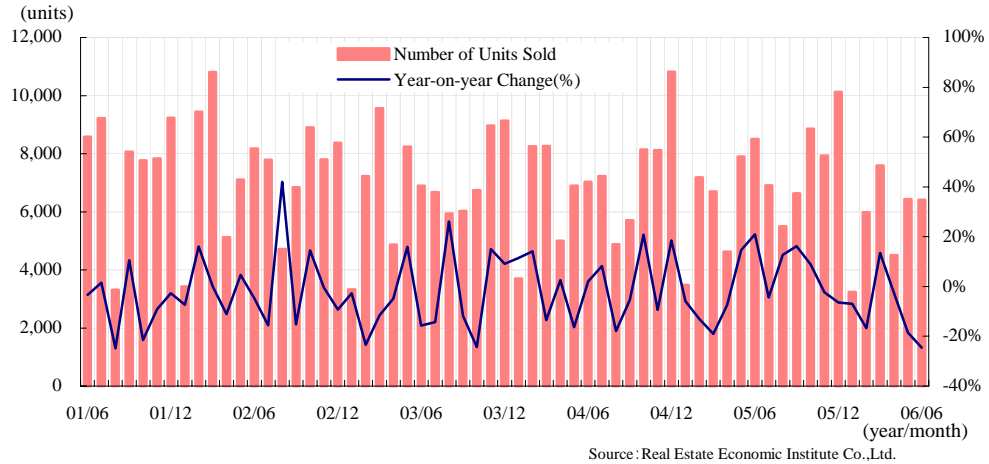
According to our forecasts, the total market capitalization of the Japanese apartment REIT sector ten years from now will reach 2.4 trillion. Using the relative market shares of the top REITs in the US market today as a model, we calculated the estimated Market Capitalization of the top players in Japan ten years from now (Table 1,10). The top player is expected to have a Market Capitalization of 550 billion yen, with a total of 22,000 units under management. A REIT with a present Market Capitalization of 50 billion yen would have to acquire 50 billion yen worth of properties each year over the next ten years to reach this target. If we assume that the top three players represent the eventual “winners” in this market, the minimum target Market Capitalization would be about 330 billion yen, which means that the winners in this market will have to acquire at least 30 billion yen of properties each year for 10 years. It is natural to expect that, as was the case in the US REIT market, mergers and acquisitions will play an important role over the next ten years. REITs that are unable to increase their assets at the rate of at least 30 billion yen per year will need to think about acquiring, or completing Japanese-style mergers with other players. Property management companies will also be faced with the need to develop efficient asset management and property management systems capable of effectively handling at least 10,000 units. In conclusion, we estimate that the apartment REIT market in Japan will expand eight-fold toward a target market capitalization of 2.4 trillion yen, and that it will come to be recognized as a sector with risk/reward characteristics distinct from those in the Office, Retail or other real estate sectors.

II. Market Watch

1. Newly Constructed Condo Market

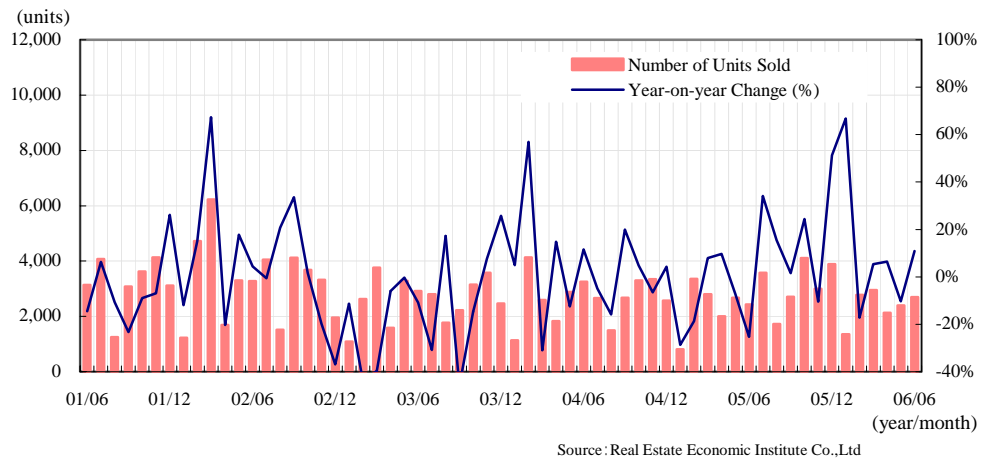
Sales Trends

<Tokyo Metropolitan Area>



The number of new condominiums sold in the Tokyo Metropolitan area has been declining compared with previous year levels since October 2005. Some analysts believe that condo makers are deliberately slowing down sales in expectation that land prices are about to increase. The total number of condos sold in June 2006 was 6,417 units, a drop of 24.5% compared to the same period in 2005.

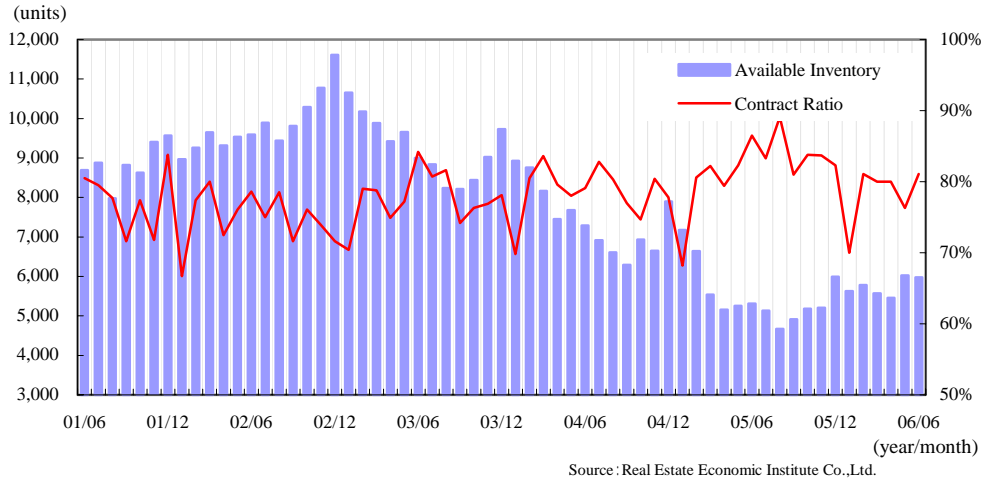
<Kinki Area>



Condo sales in the Kinki area have exceeded previous year levels every month since July 2005. A total of 2,695 units were sold in June 2006, representing a year-on-year gain of 10.9%.

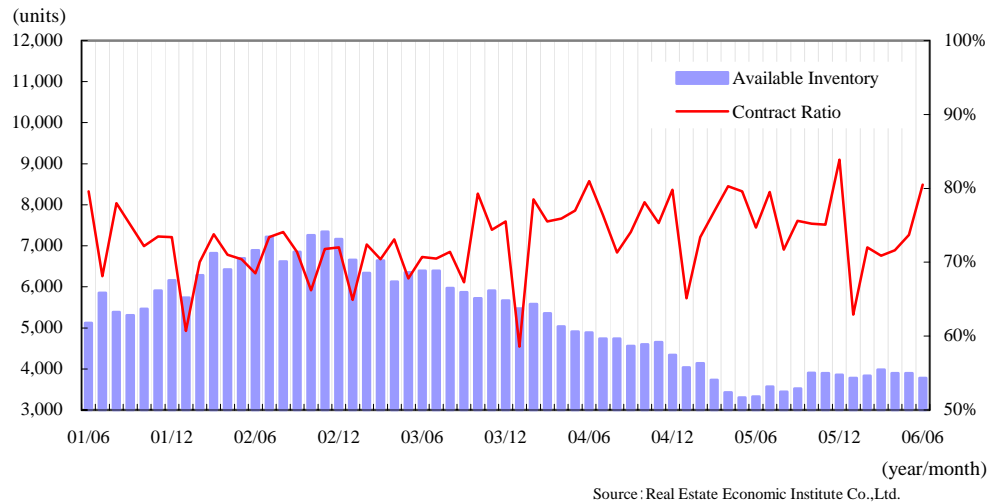
Contract Ratio and Available Inventory

<Tokyo Metropolitan Area>



The contract ratio for condos in the Tokyo metro area has remained at around the 80% level since 2003. The available listing inventory is 5~6,000 units, its lowest level 5 years.

<Kinki Area>

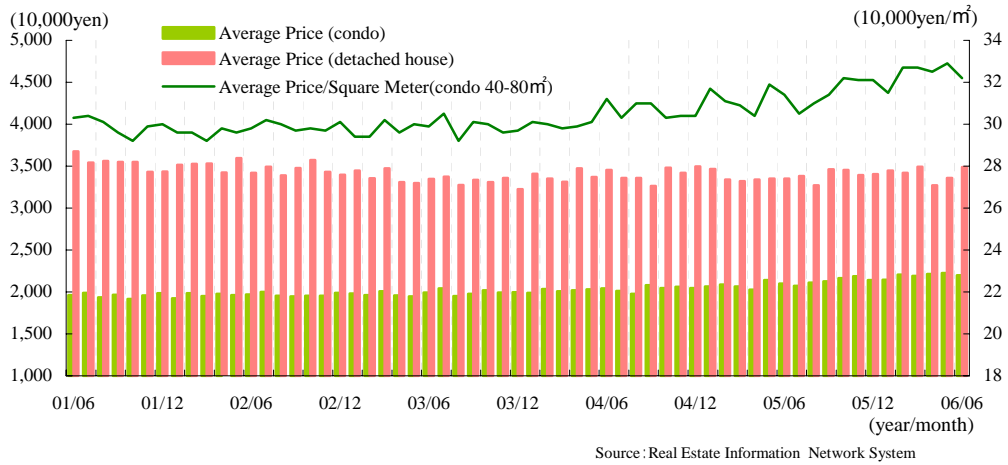


The contract ratio is also very high in the Kinki area, and has stayed in the 70-80% range since 2003. The available inventory is around 3~4,000 units, which is near its 5-year low.

2. Secondary Condo Market

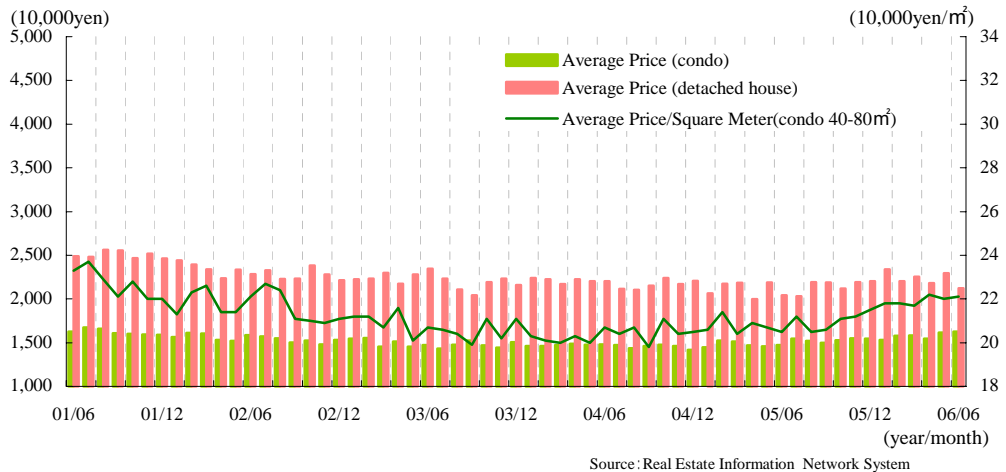
Average Contract Prices

<Tokyo Metropolitan Area>



The average price of a condominium and the average price per square meter of floor space have been gradually trending upward in the Tokyo metro area since 2004. As of June 2006 the average price of a condo unit was 22 million yen, and the average price per square meter of floor space was 322,000 yen. In contrast, the average price of detached houses has remained relatively flat over the last 5 years, and stood at 34.87 million yen in June 2006.

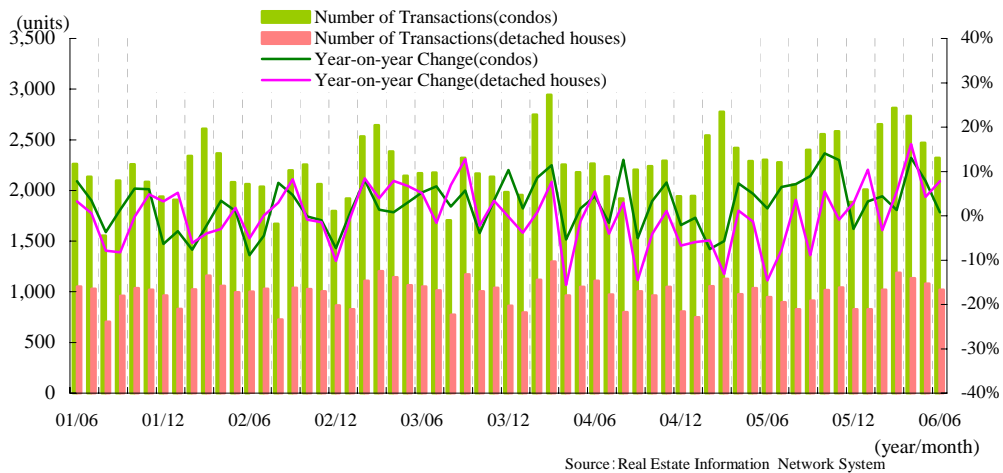
< Keihanshin Area >



The average price of condominiums and the average cost per square meter of floor space have also been rising in the Keihanshin area since 2004. As of June 2006 the average price of a condominium was 16.28 million yen, and the average price per square meter of floor space was 221,000 yen. The average price of detached houses, on the other hand, has leveled off after declining through 2003, and presently stands at around 21.23 million yen.

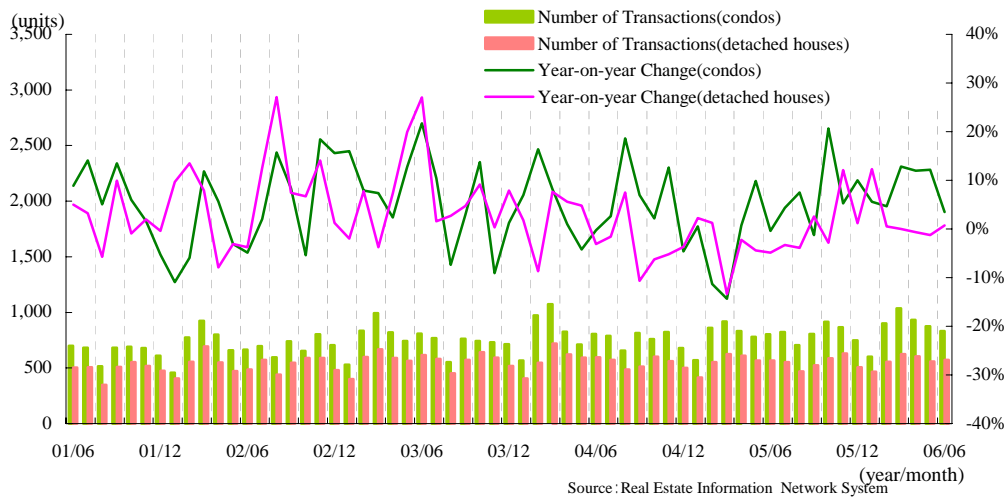
Number of Transactions

<Tokyo Metropolitan Area>



The number of contracts concluded for condominiums has been rising each year in the Tokyo metro area since 2001. There were 2,322 contracts concluded for condominiums in June 2006. Meanwhile, contracts for detached houses remain flat, at around 1,000 per month.

< Keihanshin Area >

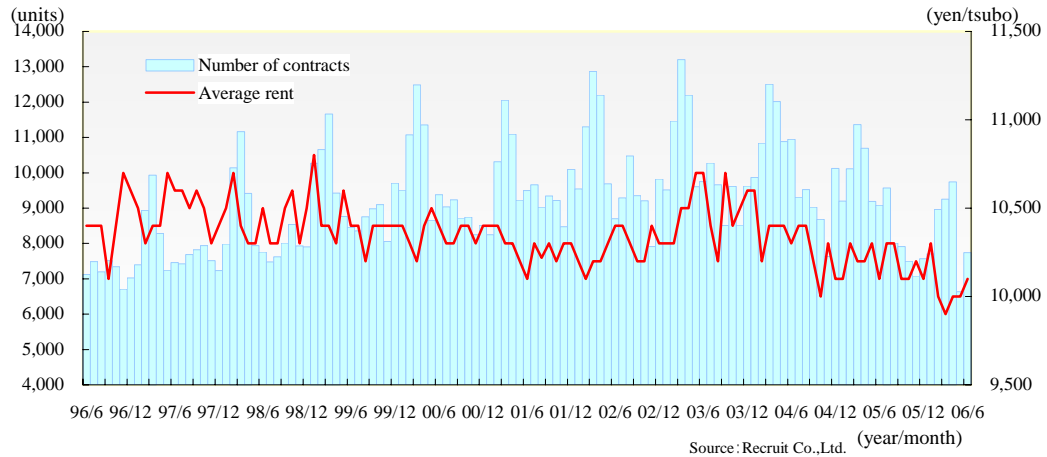


The annual number of contracts concluded for condominiums in the Keihanshin area has been rising for 5 consecutive years. There were 831 contracts signed for condominiums in June 2006. Contracts for detached houses, on the other hand, remained flat at the 5~600 level.

3. Rental Condo Market

Average Rents and Number of Contracts

<Tokyo>

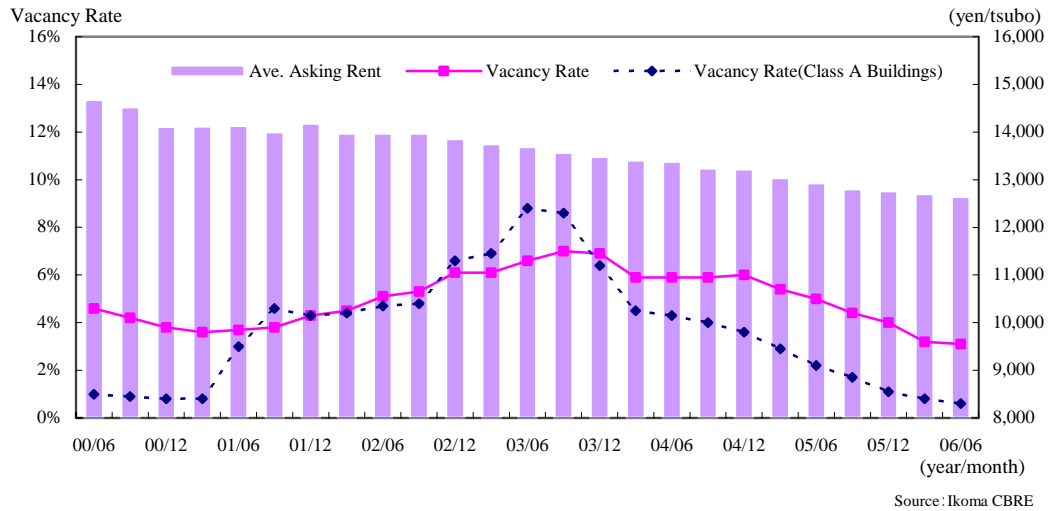


The number of rental condo contracts has been falling in Tokyo since 2003, and totaled only 7,743 in June 2006. This represents a decline of 14.8% compared with the same term in the previous year. Average effective rents have also been trending downward since 2003, and presently stand at around 10,100 yen/tsubo. One reason for this has been the strength of the owner-occupied condominium market. However, rising interest rates and recovering land prices are expected to drive up the price of owner-occupied condominiums, and as time goes on this should positively impact the rental condo market.

4. Office Market

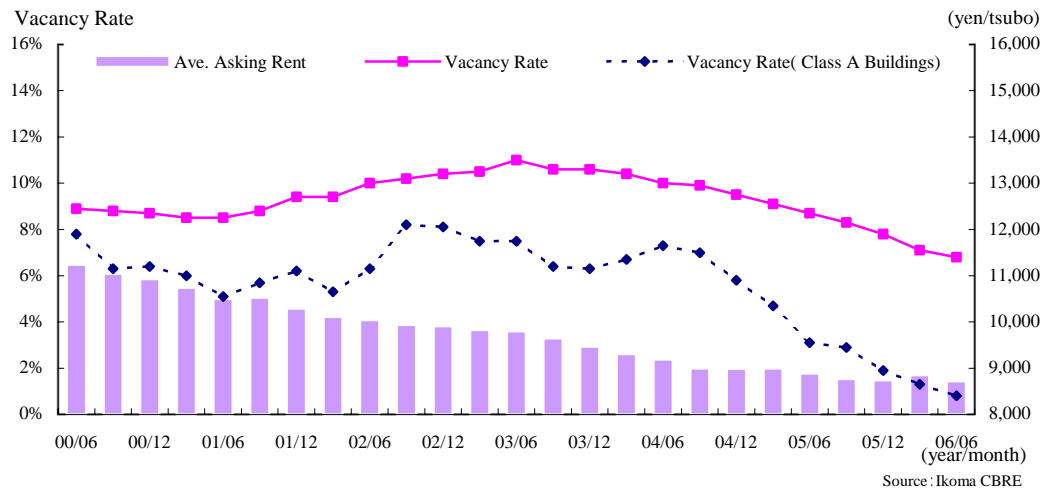
Asking Rents and Vacancy Rates

<Tokyo 23 Wards>



The average vacancy rate for office space in Tokyo's 23 wards has been on the decline since 2003, and as of the end of June 2006 it had fallen to 3.1%. When restricted to Class A buildings, the average vacancy was only 0.6%, so there is very little room for further improvement in this sector. On the other hand, average asking rents have also continued to fall, and the average cost per tsubo was 12,640 yen in June 2006. Analysts have predicted that rents should begin to rise once vacancy rates drop below the 5% level. Now that this has happened, the market will be watching carefully to see when rent levels begin to recover.

<Osaka City>

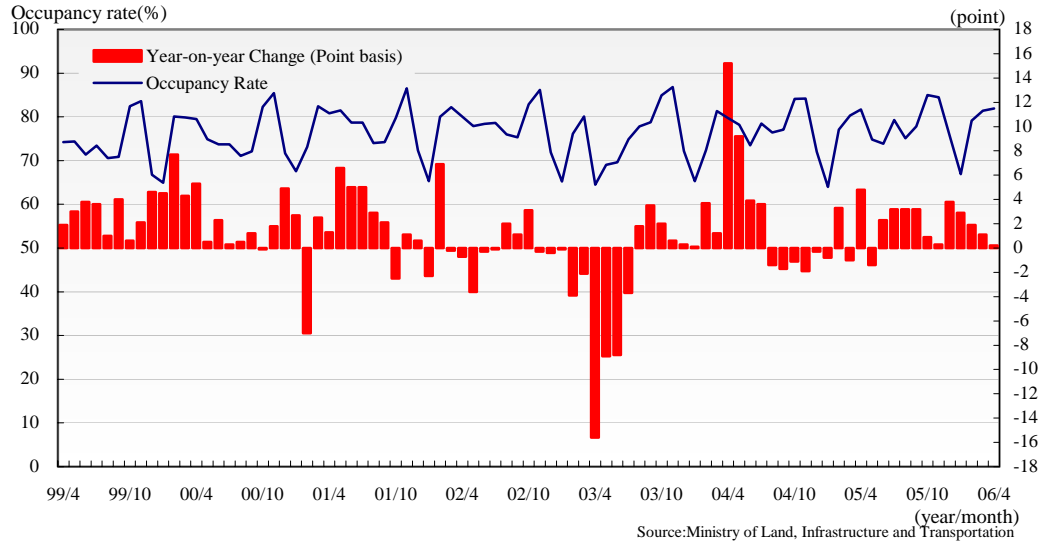


Vacancy rates in Osaka are showing a similar pattern of decline as that seen in Tokyo 23 wards, but the gap between ordinary and Class A buildings is even wider than in Tokyo. The average vacancy rate in Osaka as a whole was 6.8% in June 2006, but was only 0.8% in Class A buildings. Asking rents continue to fall, and were reported at 8,720 yen per tsubo as of June 2006.

5. Hotel Market

Occupancy Rates

<Tokyo and Osaka Areas>

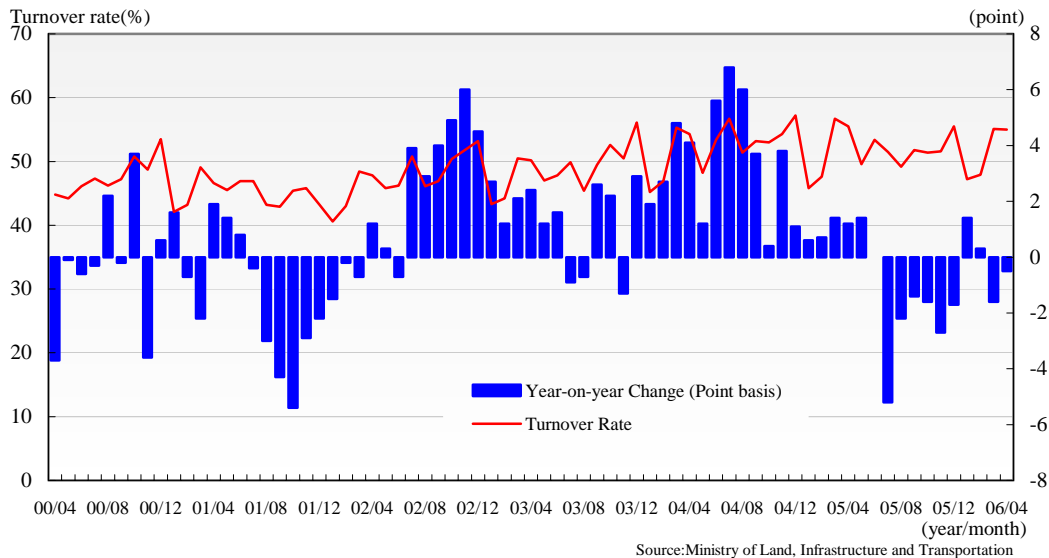


Hotel occupancy has been very stable at around 70-80% in the Tokyo and Osaka areas since 1999. However, a large number of new foreign luxury hotels have now opened in these markets, and it remains to be seen how this new supply will affect occupancy rates.

6. Logistics Market

Warehouse Turnover Rates

<Major 21 Companies>



The average turnover rate of ordinary warehouse space has remained high at 50-55% since 2004, but year-on-year performance has been falling slightly since July 2005.

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