Deutsche Bank Group
Markets Research

Japan

Real Estate

Industry

Real estate sector

Date
19 March 2012

Industry Update

Yoji Otani, CMA
Research Analyst
(+81) 3 5156-6756
yoji.otani@db.com

Akiko Komine, CMA
Research Analyst
(+81) 3 5156-6765
akiko.komine@db.com

Understanding the real estate sector (part 15) (final issue)

Fundamentals unchanged; only market sentiment has altered

This is the final issue of our "Understanding the real estate sector" series. Against a background of substantial gaps between real estate fundamentals and sector share prices, we issued the series to reconfirm actual conditions in Japan's real estate market. In what we see as a favorable development, sector share prices have been firm since the start of 2012, and we estimate that the gap between fundamentals and share prices has accordingly narrowed. However, we reiterate our view that real estate and J-REIT share prices have not started rising seriously yet.

Real estate market rebounded firmly in 2011

We need to remember that the real estate and J-REIT sectors' firm performances since the start of 2012 are due partly to a steady recovery in the environment for the real estate market amid the disruptions caused by the Great East Japan Earthquake. We discussed this environment in parts 1 (on earnings), 3 (strong upturn in transactions) and 11 (office market recovering with increase in workers).

Expectations for escaping deflation; restoration demand

The BoJ's announcement of a de facto inflation target of 1% CPI growth has spurred the market to gather pace again. We think this development partly reflects investor awareness that firm markets in both 2003 and 2007 were due to expectations of an escape from deflationary conditions. We also think multiple factors are contributing, such as market conditions similar to those following the Great Hanshin Earthquake in 1996, when reconstruction demand buoyed share prices and economic conditions. We think real estate and J-REIT share prices have not started rising seriously yet.

Real estate, J-REIT sectors to turn up again following short-term correction

With the market looking overheated due to the major rise in share prices since start-2012, we expect to see a near-term correction. Thereafter, however, we look for the real estate sector to rise again. We reiterate our Overweight view on the real estate sector.

We determine our target prices for this sector by using a residual income model. We also take into account NAV. Risk factors include a rise in risk premiums due to a decline in bank lending to the real estate sector; a decline in government spending due to a hasty hike in the consumption tax, or to a rush toward fiscal restructuring; tax revisions or regulations that inhibit the liquidity of the real estate market; and the emergence of excessive pessimism toward Japan and Japanese real estate.

Table Of Contents

Part 1

How to accurately understand current fundamentals

We think investors may partly misunderstand current conditions in Japan's real estate sector. To address this issue, we are releasing a series of reports entitled "Understanding the real estate sector". This first issue looks at the five real estate majors' profit momentum and profit levels. We forecast the major's FY12 aggregate OP to rise 10.7% YoY and FY13 OP to rebound to a level that is basically on par with FY08. We emphasize that business conditions are very stable.

Our OP forecast for five major real estate companies: up 10.7% YoY in FY12

We forecast that aggregate OP at the five major real estate companies will likely expand 10.7% YoY in FY12 to ¥506.8bn. We forecast further growth of 2.7% YoY in FY13 to ¥520.4bn. OP of ¥520.4bn would more or less match the FY08 level, thereby demonstrating the earnings stability of the real estate sector. (See Figure 1).

Mitsui Fudosan, Sumitomo R&D return to profit growth

Mitsui Fudosan is set to return to profit growth in FY3/12, and Sumitomo R&D did so in FY3/11. Tokyu Land is likely to see profit dip in FY3/12 in reaction to sales profits booked in FY3/11, but we estimate that its underlying profits have returned to growth. Tokyo Tatemono has lagged in FY12/11, but we expect profit growth to resume in FY12/12 (Figure 1).

Figure 1: OP forecasts for five major real estate companies

	FY08 Actual	FY09 Actual	FY10 Actual	FY11 DSF	FY12 DSF	FY13 DSF
OP (¥bn)	**519.2**	**468.2**	**503.5**	**457.9**	**506.8**	**520.4**
Mitsui Fudosan	171.5	120.6	120.1	122.9	135.9	148.3
Mitsubishi Estate	138.6	149.0	158.3	146.5	140.7	155.3
Sumitomo Realty	146.4	134.0	138.5	146.0	152.2	152.4
Tokyu Land	35.0	35.5	62.5	43.2	47.4	51.2
Tokyo Tatemono	27.7	29.2	24.1	-0.7	30.6	13.2
YoY (%)	**-18.8**	**-9.8**	**7.5**	**-9.1**	**10.7**	**2.7**
Mitsui Fudosan	-4.3	-29.7	-0.4	2.3	10.6	9.1
Mitsubishi Estate	-22.1	7.5	6.3	-7.5	-4.0	10.4
Sumitomo Realty	-5.3	-8.5	3.4	5.4	4.2	0.1
Tokyu Land	-57.4	1.4	76.2	-30.9	9.7	8.0
Tokyo Tatemono	-39.0	5.2	-17.4	-	-	-56.9

Notes: Figure for Tokyo Tatemono FY11 is actual.
Sources: Company, Deutsche Securities forecasts

Part 2

Miki Shoji's worsening vacancy data not negative for real estate sector

The laggard improvement in Miki Shoji's vacancy rates contrasts with the clear recovery in vacancy rates for newer large buildings (Figure 2). We believe companies that might have moved to buildings with cheaper rent in the past have been leaning instead towards those with better quake resistance since last year's Tohoku disaster. This suggests that demand is on the rise for the kind of buildings held by the real estate majors and J-REITs. That is, Miki Shoji's worsening vacancy data is positive for the large real estate firms and J-REITs.

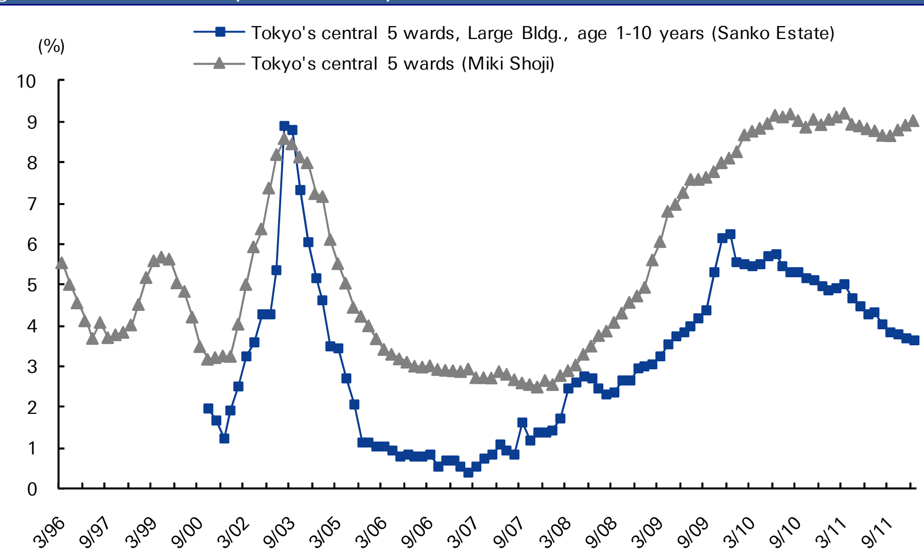
Protecting employee safety is management's duty

In an earthquake-prone country like Japan, homes and buildings need to serve as shelters at times of emergency. As such, Japanese architectural constructions boast a high level of earthquake resistance. At the same time, there are still many buildings that do not meet the new seismic standards introduced in 1971. People can choose residences at their own risk, but for companies, it is management's duty to protect the safety of employees. This is clear in Mori Building's recent "Survey of Office Needs in Tokyo's 23 Wards" (Figure 3).

Uncompetitive buildings switched to condo use

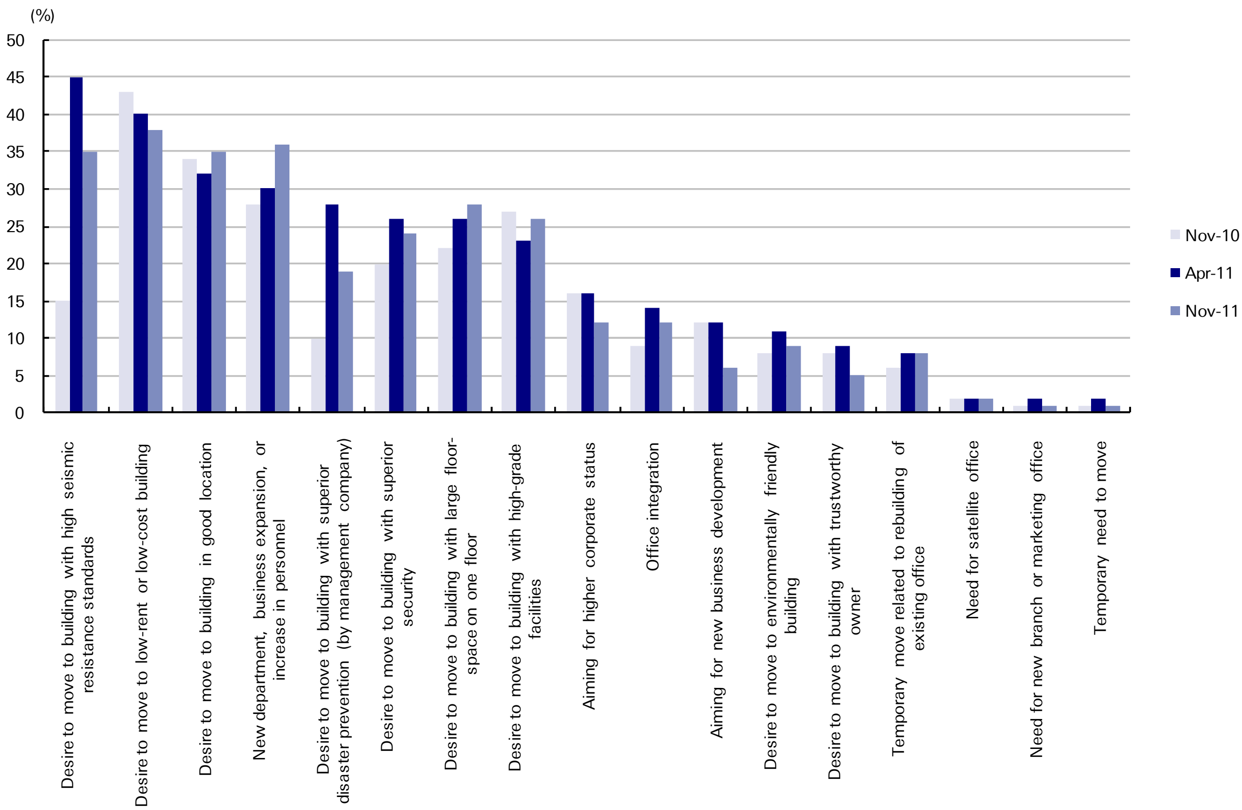
Even with an economic recovery we believe vacancy rate improvements will be sluggish for seismically inferior buildings. We suspect that such uncompetitive buildings will be razed and serve as spots for future large office buildings or be rebuilt as condominiums, which have become difficult to find in prime locations. The office stock has not increased significantly because of the large number of old buildings that have been demolished. We expect further disappearances among buildings unable to meet the new quake resistance designation system being introduced by Metro Tokyo for all buildings in the prefecture.

Figure 2: Office vacancy rates in Tokyo's five central wards



Source: Sanko Estate, Miki Shoji

Figure 3: Survey of Office Needs in Tokyo's 23-wards (Reasons behind new rentals)



Source: Mori Building

Part 3

J-REIT property acquisitions exceeded ¥700bn in 2011

J-REIT property acquisitions have improved steadily after bottoming at ¥246.8bn in 2009, rising to ¥544.4bn in 2010 and ¥714.4bn in 2011. Acquisitions exceeding ¥700bn are even larger than those recorded in 2004 (Figure 4). Also, in 2011 GLP made property acquisitions of ¥122.6bn – showing that non J-REIT companies are also making major acquisitions (Figure 5). Moreover, Canadian, Dutch, and Korean pension funds established funds that target Japanese real estate (Figure 6).

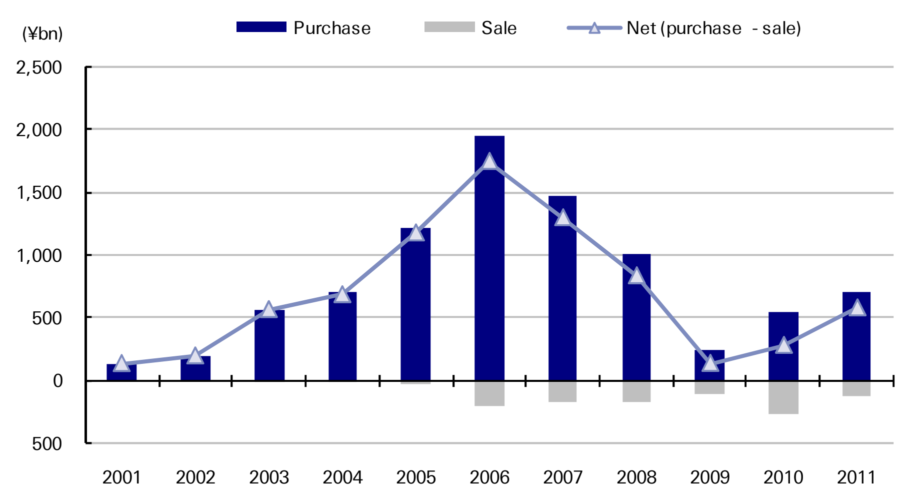
Real estate market is returning to normal

Japan's real estate market was beset by troubles last year because of the 11 March earthquake and the European debt crisis, both of which occurred in 2011. However, as mentioned above, the Japanese real estate market has improved dramatically despite these challenges. Most notable has been improving office vacancy rates and strong condo sales.

Why overseas investors focus on Japan's real estate market

Concerns arose that overseas real estate investors might avoid Japan after the 11 March earthquake, but these concerns turned out to be unfounded. In fact, overseas investors aggressively invested in Japanese real estate despite the earthquake's effects and the strengthening yen. This is because investors can procure funds at low interest rates and expect to generate stable cash flows; suggesting that Japan is a more attractive market than cities in other countries.

Figure 4: Property acquisition by J-REITs (purchase /sale price base)



Source: Company, The Association for Real Estate Securitization

Figure 5: Large deals in 2011

	Kokusai Akasaka Bldg (East & West)	Otemachi Pal Bldg (Head office of Promise)	Akasaka Park Building	Mitsubishi Heavy Industries Head Office Bldg	Nibancho Center Building	Logistic facilities (15 properties)
Location	Minato-ku Tokyo	Chiyoda-ku Tokyo	Minato-ku Tokyo	Minato-ku Tokyo	Chiyoda-ku Tokyo	15 properties
Construction completion	Y1980	Y1961	Y1993	Y2003	Y2009	-
Gross floor space (㎡)	81,046	27,923	97,489	67,123	44,343	77,989
Transaction	3/2011	3/2011	11/2011	9/2011	1H 2011	12/2011
Price	(90bn yen)*1	72bn yen	60.8bn yen	60.5bn yen	(74.0bn yen) *2	122.6bn yen
Seller	Lone Star Group	Promise	Mitsubishi Estate	Mitsubishi Heavy Industries	Mitsubishi Estate	LaSalle Investment
Buyer	Mitsubishi Estate	Mitsui Fudosan Mitsui & Co.	JRE	NBF(60%) Domestic Institutional Investors (40%)	Private REIT	Global Logistic Properties China Investment Corp

*Note: *1 The price for Kokusai Akasaka Bldg is based on newspaper reports. *2 Deutsche Securities estimates *3 JRE: Japan Real Estate Investment Corporation NBF: Nippon Building Fund Inc.*
Source: JRE, Nikkei Real Estate Market Information, Deutsche Securities

Figure 6: Major investments in Japanese real estate

Operator, fund name	Country of origin	Targeted investments	Size	Investor affiliation	Investment style	Time of announcement
Diamond Realty Management Dream Data Center Fund	Japan	Domestic data centers (3 properties including the IIF Shinsuna data center)	¥25.8bn	Mitsubishi Corporation, domestic pension funds, foundations, companies	Core (property-specific type)	Aug
Goodman Group	Australia	Domestic logistic facilities (Sakai Goodman and other)	¥100.0bn (12 to 18 months)	The company	Development	Aug
Global Logistic Properties	Singapore	Domestic logistic facilities Misato GLP III, and others	¥76.6bn (3 years)	The company, Canada Pension Plan (CPP)	Development	Sep
Alpha Investment Partners Alpha Asia Macro Trends Fund II	Singapore	Asian real estate including Japan	An initially ¥35bn investment commitment	Pension funds, government-related investment funds, Fund of funds	Core plus - Opportunity	Sep
JR AMC	Korea	Tokyo-based offices, residences, logistic facilities	¥100.0bn (3-5 years)	Korean pension funds	Core	Sep
MGPA	Singapore	Asian commercial real estate including Japan	Approx. ¥100.0bn	Institutional investors in German-speaking regions	Core – core plus	Sep
Tokyu Land (Activia Properties) (Scheduled listing: 2012)	Japan	Domestic commercial facilities and office buildings	Undetermined	Public offering	Core	Sep
Kenedix's new REIT (Scheduled listing: 1H 2012)	Japan	Domestic residential rental properties	Initially capped at ¥70bn	Public offering	Core	Oct
Diamond Realty Management Dream Mezzanine debt Fund	Japan	Mezzanine debt Commercial facilities in metropolitan Tokyo 3 projects and a portfolio of residential rental properties	¥10.2bn	Mitsubishi Corporation, domestic pension funds	Core (property-specific type)	Oct
Secured Capital AVIVA (UK)	NA	Central Tokyo offices	¥40bn	The company, Dutch pension funds (PGGM)		Nov
Global Logistic Properties (GLP) China Investment Corporation (CIC)	Singapore China	Domestic logistic facilities	¥122.6bn			Dec

Source: Nikkei Real Estate Market Report, Company

Part 4

Market has changed markedly

We issued our "Understanding the real estate sector" series of reports because we think that investors do not fully understand the current conditions of Japan's real estate sector, and to convey our view that sector share prices are significantly undervalued. We halted the series temporarily during the 3Q results season, and the market has changed in the interim. However, we think the real estate and J-REIT sectors still look undervalued, and expect a firm market like that prevailing between 2003 and 2007 to reemerge.

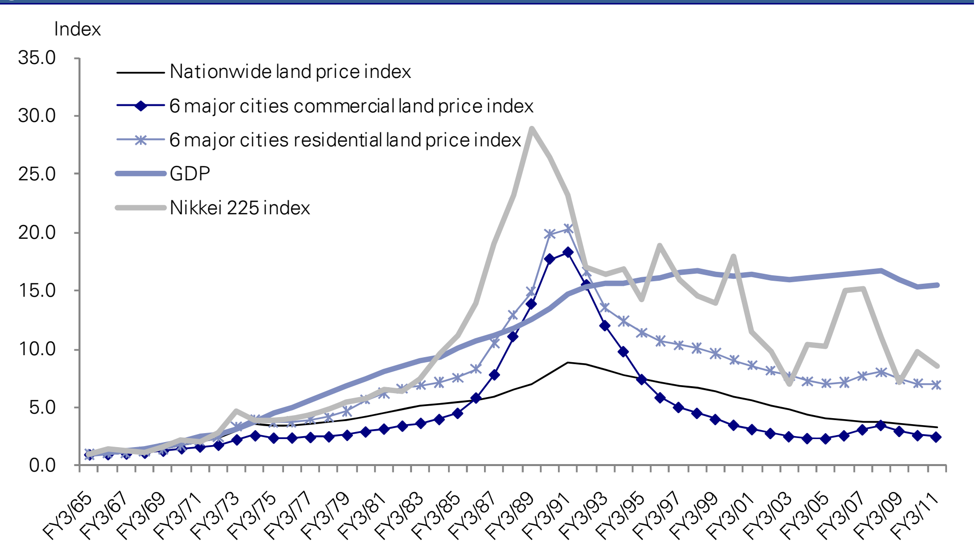
Japanese stocks in second period of low valuations

We think Japanese stocks have experienced only two periods of significantly low valuations, in 2003 and currently. We take this view because it is only on these occasions that share price levels have been well below nominal GDP (Figure 7). Investors will recall that share prices and real estate prices rose strongly during the first period, between 2003 and 2007. The upside was driven by increased expectations for the economy to escape from deflation as CPI turned from negative to positive growth owing to the BoJ's monetary easing (Figure 8).

Similarly firm market could reemerge

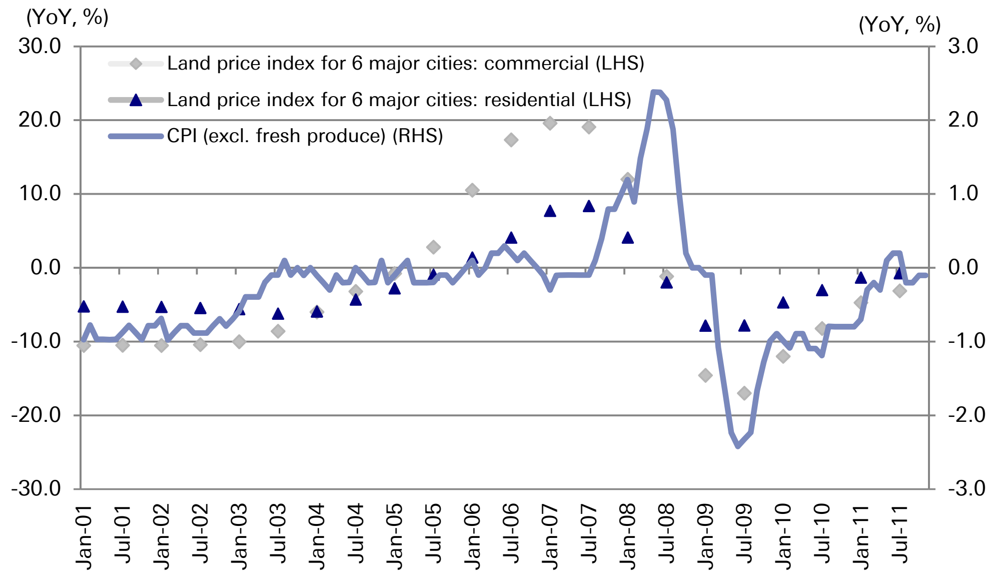
On 14 February, the BoJ announced a de facto inflation target of 1% CPI growth. Historical precedent indicates that a change in the CPI to positive growth brings strong growth in real estate prices (Figure 8). We think the current firm market is due partly to investors starting to factor in these expectations. CPI has already improved to close to zero, and the highest priced lots in Tokyo's 23-wards have started to rise (Figure 9). We expect a turn to positive CPI growth and increased expectations of an escape from deflationary conditions to signal a firm market.

Figure 7: Land prices, nominal GDP and Nikkei 225 index



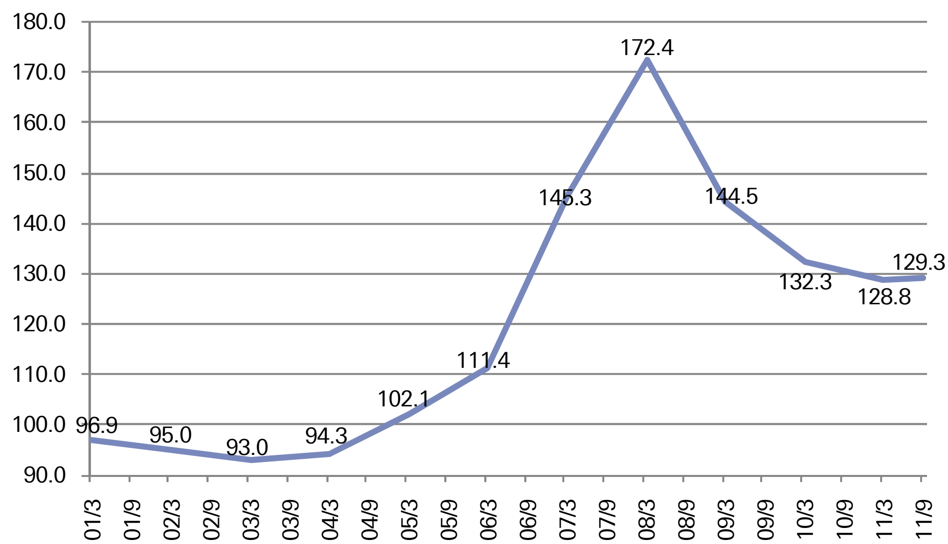
Source: Japan Real Estate Institute, Cabinet Office, Datastream

Figure 8: A turn to positive CPI growth brings strong growth in real estate prices



Source: Ministry of Internal Affairs and Communications, Japan Real Estate Institute

Figure 9: Urban Land Index (highest priced lots in Tokyo's 23-wards)



Source: Japan Real Estate Institute

Part 5

We can expect high economic growth in CY2012

When we use our forecast for real GDP to calculate GDP growth based upon an EXIT rate, the result is a high economic growth rate of 3% (Figure 10). The correlation between this EXIT rate based GDP growth and office demand is high (Figure 11). This means that in 2012 we could see a large rise in demand for office space. Office demand increased 1.1% YoY in CY2011, the first growth in four years. We expect demand to continue increasing in CY2012 and CY2013.

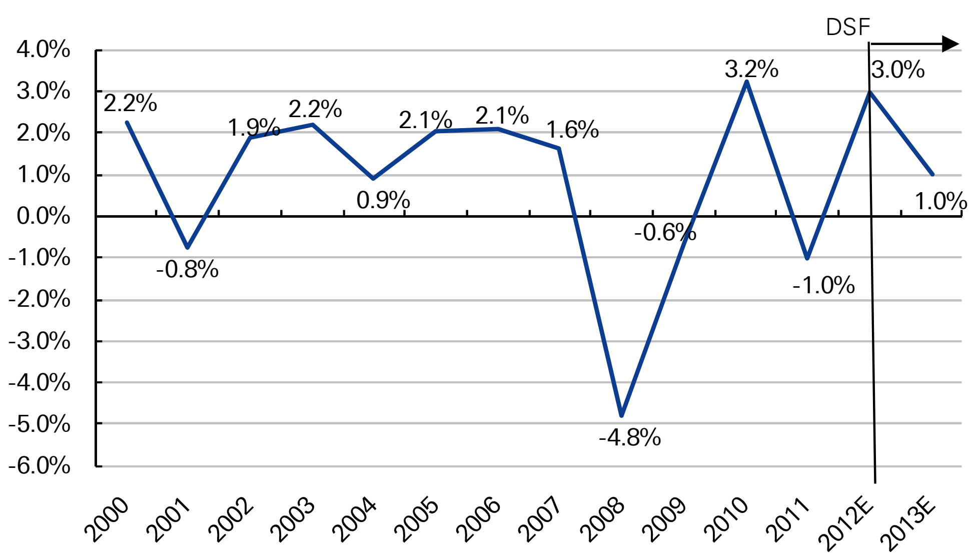
Net office supply not excessive

In accordance with the 2002 enactment of the Urban Renewal Special Measures Law, recent office supply is mainly due to reconstruction, and office stock increases are less than during the early 1990s (Figure 12). In fact, the office supply rate versus office stock is only increasing at around 1% per year (Figure 13). As such, demand, not supply, is important for forecasting the office market, and this means that the economic growth rate is key. The economy is now forecast to see major growth in CY2012.

A wall starts to crumble

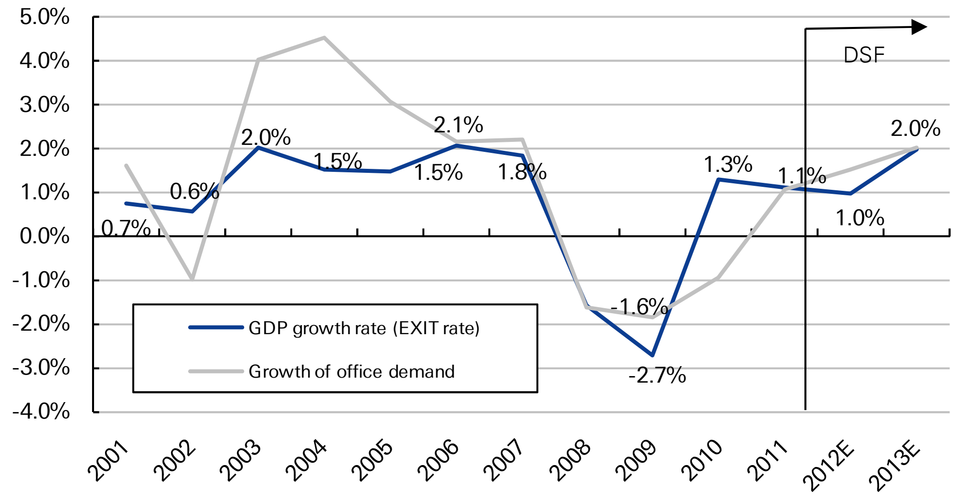
After bottoming in 2009, share price rises in the real estate and J-REIT sectors have been lackluster compared to the improvement in the real estate market. This situation is gradually beginning to change. The wall formed by the overly pessimistic outlook of investors is starting to crumble. The recovery in the real estate market that started in 2009 is leading to the destruction of this wall. This development confirms our view the real estate sector has also entered a period of rising share prices.

Figure 10: GDP growth rate (based on the EXIT rate)



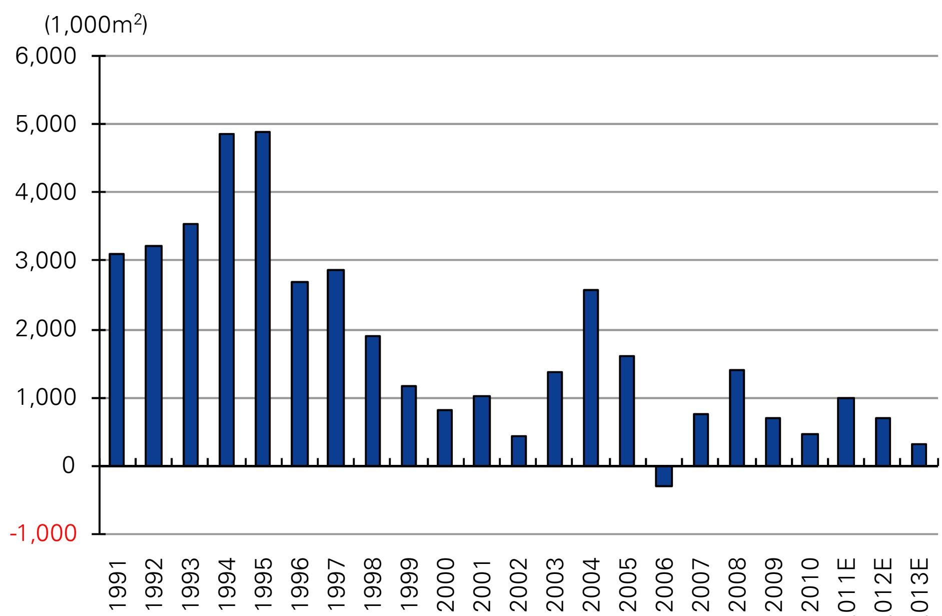
Source: Cabinet Office, Deutsche Securities forecast

Figure 11: GDP growth rate (based on the EXIT rate) and office demand



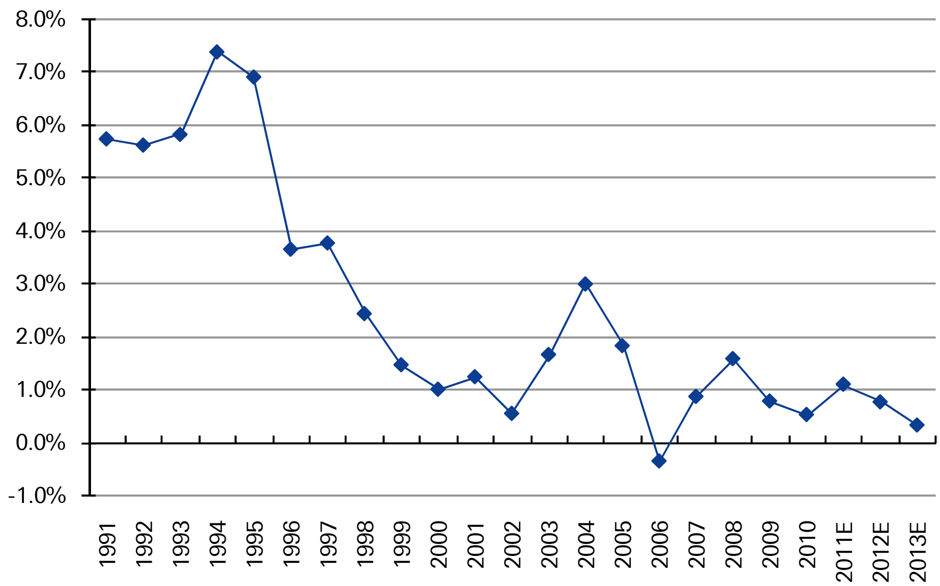
Notes: GDP growth rate = average of recent 2 years
Source: Cabinet Office, Miki Shoji, Deutsche Securities forecast

Figure 12: Tokyo 23 wards, Annual increase in office stock (net base)



Source: Tokyo Metropolitan Government "Tokyo no tochi", Deutsche Securities forecast

Figure 13: Tokyo 23 wards, Office supply rate versus office stock



Source: Tokyo Metropolitan Government "Tokyo no tochi", Deutsche Securities forecast

Part 6

Condo boom in 2012: rush of large-scale projects

There are five large-scale condominium developments, each with more than 1,000 units, scheduled to come to market in 2012. We believe there is a tendency for market conditions to become more active in years when large-scale condo projects are completed. According to projections made by Haseko, metropolitan area condo supply is estimated to increase 21% YoY to 54,000 units in 2012 (See Figure 14). This suggests the condo market has made a steady improvement since supply bottomed at 36,876 units in 2009.

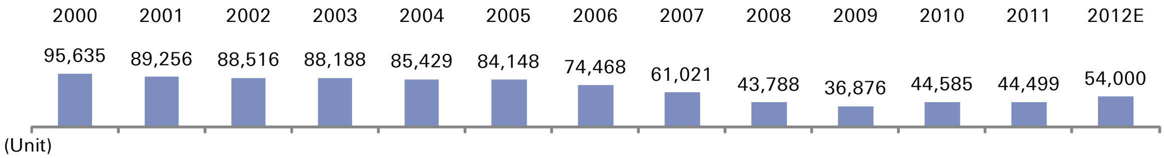
Market share growing for top seven condo makers

Market share is increasing for the seven major real estate companies (Sumitomo R&D, Daikyo, Tokyu Land, Tokyo Tatemomo, Nomura Real Estate Development, Mitsui Fudosan, and Mitsubishi Estate). The market share of these companies was just under 30% in the early 2000, but has risen to roughly 50%. We believe the trend favoring companies with reliable funding, strong brand image, and highly functional products is likely to continue. As a result, we think the major real estate developers are positioned to benefit from a recovery in the condo market, not the mid-sized condo developers.

Monitoring Tokyo Tatemono's Yokohama Isogo Brillia City, "The PEAK"

We believe sales trends for Tokyo Tatemono's Yokohama Isogo Brillia City "The PEAK", which comes to market in mid-March, will prove to be an important indicator for the condo market in 2012. Given its location in the Isogo Ward of Yokohama, the development is not centrally located, but represents the large-scale (1,230 units) redevelopment of space vacated by the former Yokohama Isogo Prince Hotel. It will also have a substantial impact on earnings for Tokyo Tatemono.

Figure 14: Metropolitan area supply of large-scale condo projects (1,000-plus units)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E
Tokyo 23-wards	Tokyo Twin Parks		W Comfort Towers		World City Towers Tokyo Terrace	The Tokyo Towers	Shibaura Island Cape Tower Park City Toyosu	Brillia Mare Ariake	City Towers Toyosu The Twins Osaki West City Towers Futako Tamagawa Rise & Residence		Brillia Ariake Sky Towers		The Park House Harumi towers
Tokyo ex. 23-wards													Brillia Tama New Town
Kanagawa	Sun Stage Ryokuentoshi Thousand City			Garden Associe Radiantcity Yokoham		M.M.TOWERS FORESIS	Parkcity Musashikosugi		Yokohama All Parks Lietocourt Musashikosugi * partially rented				Brilliacity Yokohama Isogo THE PEAK Riverie
Saitama		I'M Fujimino I'M Tower							Park City Saitama-kita				
Chiba	Bay Mark Square The Towers Garden Plaza Shin-Kemigawa DC					Wonder Baycity SAZAN			Yutoricia				Proud Shin-Funabashi
Total condominiums	5	1	1	2	2	3	4	1	7	0	1	0	5

Source: Haseko Urbest

Part 7

Land prices: signs of a turnaround

On 22 February, the Ministry of Land, Infrastructure, Transportation and Tourism released its January 2012 research paper "Land Price LOOK Report". The report contains price trends for 150 locations in major cities over the prior quarter. A majority of areas (86) showed higher or stable prices. It is the first time this has occurred since July 2008. There has recently been a clear improvement in the CPI, which is highly correlated with land prices. If the BoJ successfully attains its 1% inflation target, we expect land prices to gain further upward momentum.

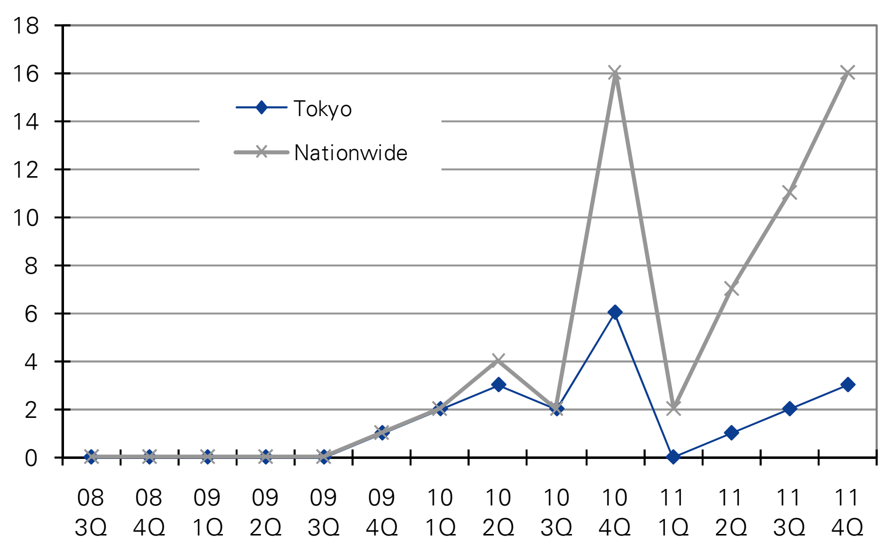
Higher prices for 3 districts in Tokyo area, 16 locations nationwide

In the Tokyo metropolitan area, 3 districts had higher land prices, 5 districts each in the Osaka and Nagoya areas, and 16 regions nationwide (Figure 15). A turnaround is already visible for prices in the most expensive areas (Figure 16), and the "Land Price LOOK Report" provides further evidence of higher prices.

Rising land prices to gain momentum if the CPI breaks into positive territory

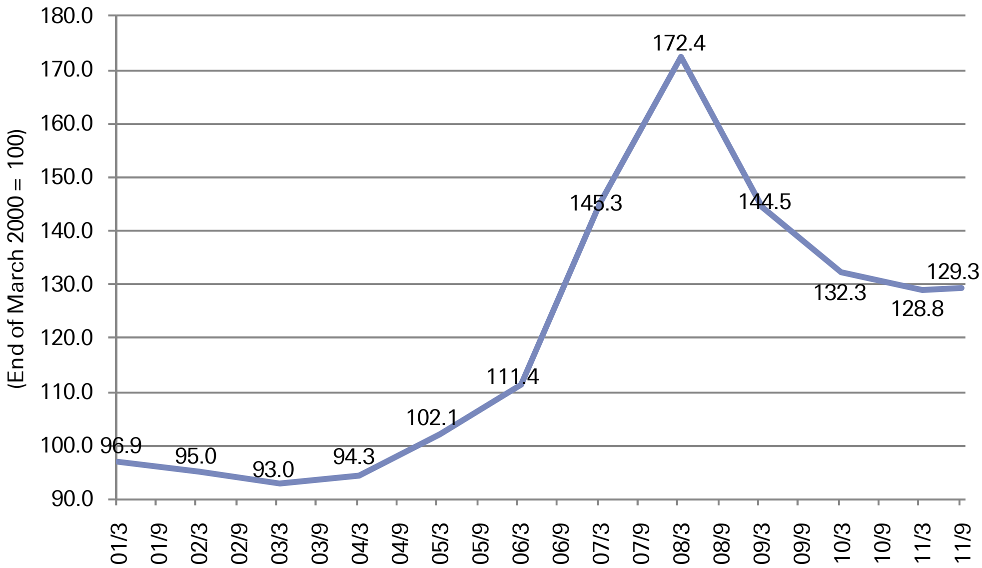
Figure 17 illustrates the correlation between CPI and land prices. Land prices are likely to gain added upward momentum if the BoJ successfully achieves the 1% underlying inflation target announced 14 February.

Figure 15: The number of districts with rising land value increased during the quarter



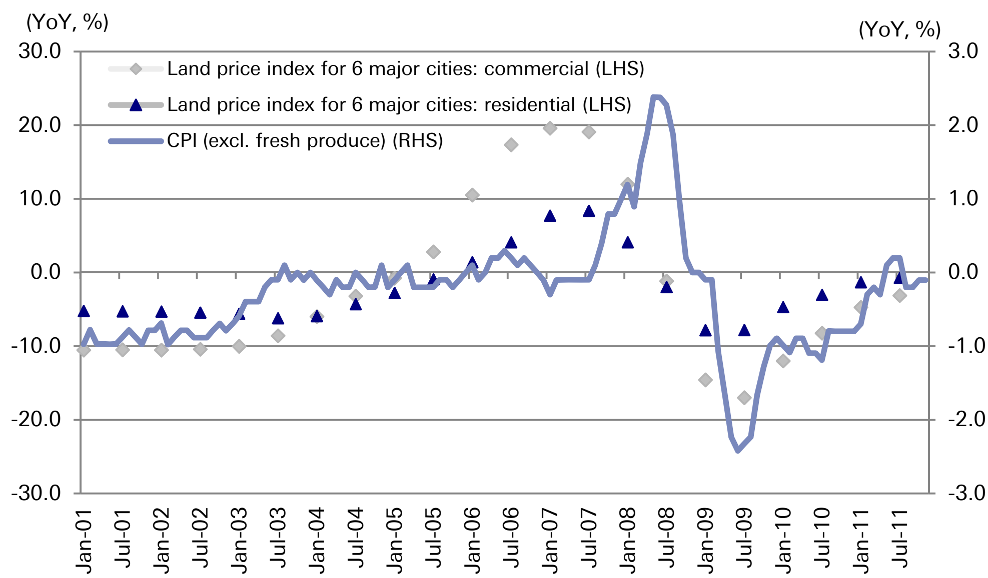
Source: Ministry of Land, Infrastructure, Transport and Tourism

Figure 16: Urban Land Index (highest priced lots in Tokyo 23-wards)



Source: Japan Real Estate Institute

Figure 17: CPI and land price index



Source: Ministry of Internal Affairs and Communications, Japan Real Estate Institute

Part 8

Extremely cheap funds remain available

Mitsubishi Estate took out a 5 year syndicate loan for ¥29bn. Funding cost was based on 3 month LIBOR plus zero spread, as the company has once again successfully borrowed at cost-of-funds plus zero. Tokyo Land also issued a 5 year corporate bond for ¥10bn at 0.81% in another sign of the exceptionally low-cost funding environment. The BoJ's Tankan Survey shows an improvement in funding for real estate companies (See Figure 18), and we believe further monetary easing announced on 14 February ensures the continuation of favorable conditions.

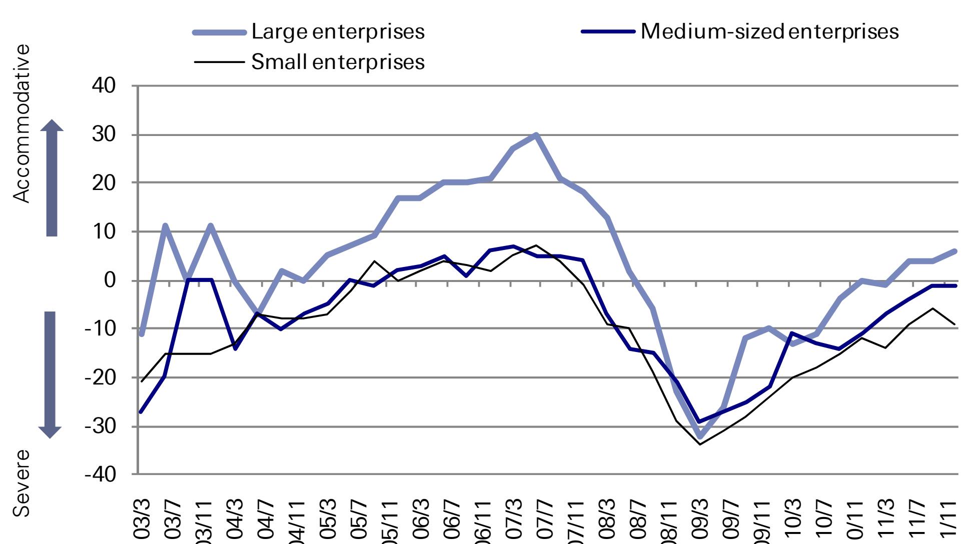
Negative real interest rates

The BoJ introduced a de facto inflation target aiming for a 1% increase in the CPI. As such, funding rates under 1% for the large real estate developers and J-REITs are possibly indicative of negative real borrowing costs.

Home mortgage rates also low

Home mortgage loans (35 years) for the Toyosu condo development brought to market by Sumitomo R&D are 0.775% (as of February). Low-cost home mortgage financing is also available. In other words, even individuals are able to benefit from low real interest rates in the current environment.

Figure 18: BoJ Tankan Survey, Bank lending attitude to the real estate sector



Source: Bank of Japan

Part 9

Many real estate sector shares still look undervalued

Although real estate sector share prices are performing favorably, many issues are still trading far below NAV. We have prepared a list of issues that look undervalued in terms of NAV (Figure 19). For example, on a P/NAV of 0.21, Land Business (8944) is trading at some 80% discount to NAV. We see this as evidence that Japan's real estate sector is still strongly undervalued.

TOC's (8841) P/NAV, at 0.57, is lower than Sankei Building's (8809)

Operating companies are obliged to disclose market values of their leasing properties at term-end. We have simply defined NAV as shareholders' equity plus the differential between market and book value (after tax). Dividing the share price by this figure, we obtain our P/NAV. Based on this definition, TOC's P/NAV is 0.57. This figure is lower than Sankei Building's.

Sankei building TOB at 2.49x share price

Fuji Media Holdings (4676) announced its TOB for Sankei Building (8809) on 19 January. The purchase price of ¥740 was 2.49x the 19 January closing price of ¥297. Even this was below our calculated NAV per share of ¥1,147.

Figure 19: TSE 1st section, Real estate companies, undervalued stocks by P/NAV ranking

Company		PBR (x)	NAV (¥mn)	P/NAV (¥mn)	NAV/per share (¥)
8944	Land Business	0.31	19,733	0.21	73,908
8881	Nisshin Fudosan	0.41	29,099	0.43	1,240
8864	Airport facilities	0.45	49,830	0.44	908
8877	Nihon Eslead	0.46	26,174	0.47	1,692
8818	Keihanshin Real Estate	0.53	62,615	0.30	1,364
8869	Meiwa Estate Company	0.53	22,986	0.51	884
8871	Goldcrest	0.61	94,948	0.59	2,653
8904	Sanyo Housing Nagoya	0.63	17,022	0.60	127,985
8934	Sun Frontier Fudosan	0.64	6,475	0.72	17,452
8804	Tokyo Tatemono	0.64	193,722	0.74	447
8809	Sankei Building	0.65	78,342	0.65	1,147
8803	Heiwa Real Estate	0.66	77,655	0.55	388
8841	TOC Co.	0.74	101,677	0.57	743
8806	Daibiru Corporation	0.74	159,823	0.42	1,368
8842	Tokyo Rakutenchi	0.75	39,871	0.48	612
3003	Shoei Company	0.75	31,782	0.45	769
3231	Nomura Real Estate Holdings	0.80	322,138	0.83	1,692
9706	Japan Airport Terminal	0.87	149,777	0.61	1,773

Source: Deutsche Bank

Part 10

BoJ's balance sheet expanded to ¥144trn

There may little change in the BoJ's reluctant approach to monetary easing, but its easing policy nonetheless continues. Evidence can be found in the BoJ's balance sheet. The most recent data available, for 29 February, shows this has expanded to ¥144trn. While this is less than the ¥152trn reached in 2006, it is still a 25% increase from the approximately ¥115trn reported in 2010 (see Figure 20).

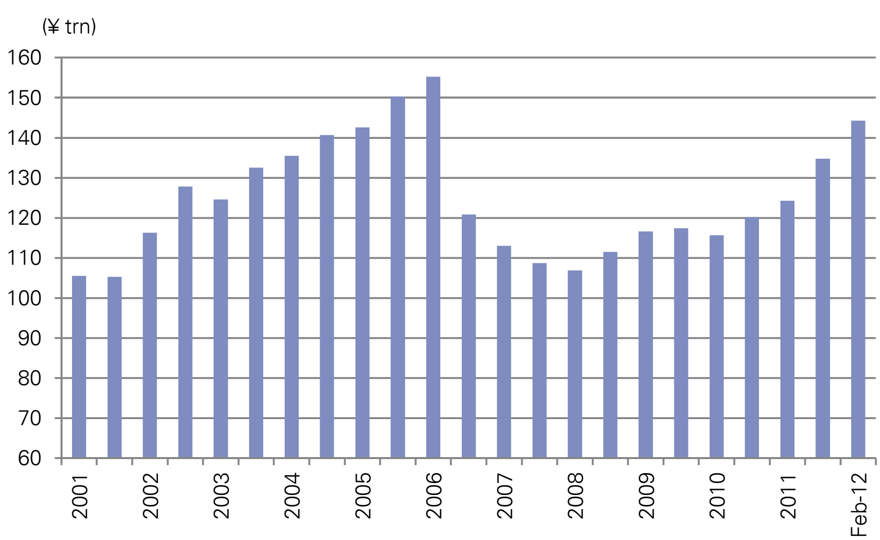
January CPI declines 0.1%

On 14 February, the BoJ announced a de facto inflation target of 1% CPI growth. January's 0.1% decline in the CPI means the BoJ is far from this 1% target. However, the degree of the decline in the CPI is steadily growing smaller in response to the BoJ's monetary easing. During 2003 to 2007, the equity market rose substantially, led by financial stocks, and real estate prices also appreciated significantly. One factor behind this movement was the transition of the CPI from negative to positive territory and accompanying expectations that deflation had been defeated (See Figure 21).

January contract prices for existing condos in Tokyo's 23 cities rose 1.5% YoY

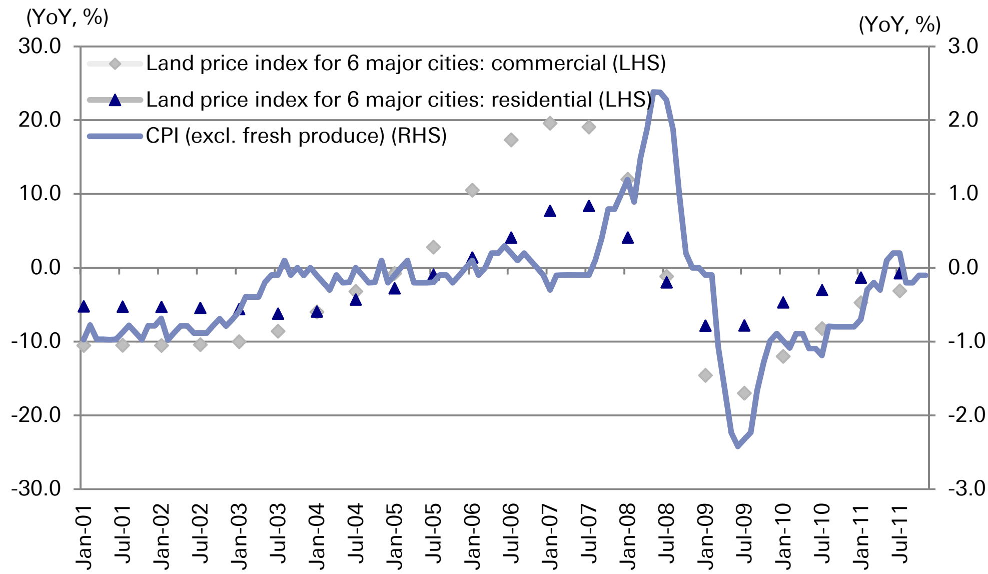
January data released by At Home, a real estate information company, showed prices for existing condos in Tokyo's 23 cities rose 1.5% YoY and 0.8% YoY for the Tokyo metropolitan region. It was the first time in six months that contract prices in the 23 cities exceeded ¥28m. Real estate prices tend to get a bounce when the CPI enters positive territory, and we believe the real estate and J-REIT sectors have further upside potential (See Figure 21).

Figure 20: Bank of Japan balance sheet



Source: Bank of Japan

Figure 21: CPI and land price index



Source: Ministry of Internal Affairs and Communications, Japan Real Estate Institute

Part 11

Return to growth in office demand in 2011 due to increase in workers

The number of employed persons in metropolitan Tokyo totaled 6,795,000 in 2011, up by 67,000 or 1.0% YoY and increasing for the first time in three years. Figure 22 indicates a correlation between changes in the number of employed persons in Tokyo and demand for office space. Reflecting this, demand for office space increased by 1.1% YoY in 2011. We forecast real GDP growth of 3% (EXIT rate basis) for 2012, and expect the number of employed persons in Tokyo to continue rising. We thus also expect demand for office space to expand for the second year in a row.

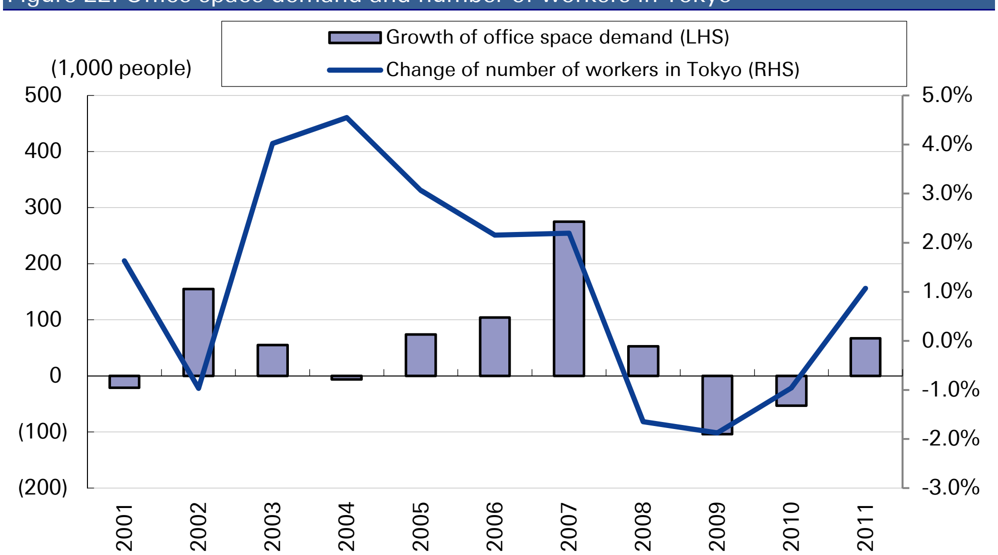
Growth in demand for office space between 2003 and 2006 may have been speculative

Demand for office space expanded rapidly between 2003 and 2006. Although the number of employed persons in Tokyo grew, demand for office space outpaced it substantially (Figure 22). We estimate that much of this demand may have been speculative, ie, in expectation of future rent growth. We also think that the subsequent weakness in office pricing was more prolonged than during normal cycles because of a decline in reaction to this speculative demand.

Office demand poised for growth phase

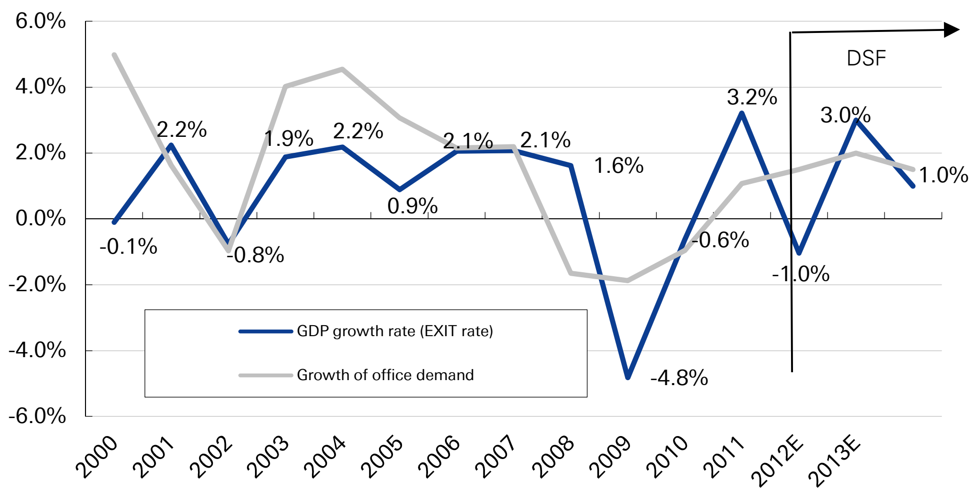
The first growth in three years in the number of employed persons in Tokyo in 2011 resulted in the first upturn in demand for office space in four years. We forecast real GDP growth (EXIT rate basis) of 3% for 2012, and look for demand for office space to rise for the second year in succession. Figure 23 plots the relationship between real GDP growth and demand for office space.

Figure 22: Office space demand and number of workers in Tokyo



Source: Tokyo metropolitan Office, Miki Shoji, Deutsche Securities

Figure 23: Office demand and Real GDP growth (EXIT rate basis)



Notes: GDP growth rate is one year ahead
Source: Cabinet Office, Miki Shoji, Deutsche Securities forecast

Part 12

Residential rents are rising despite deflation

Current rents for residential properties have risen to 110.6 from a base of 100 in 1990, the peak of the economic bubble. At the same time, real estate prices have fallen to 34.3 from a base of 100 (prices in the six major cities) in the same year (Figure 24). Japanese real estate is thus a substantially more attractive investment now than it was during the bubble era. We think a high distribution yield of roughly 6% makes residential REITs into investment vehicles offering potential stable returns.

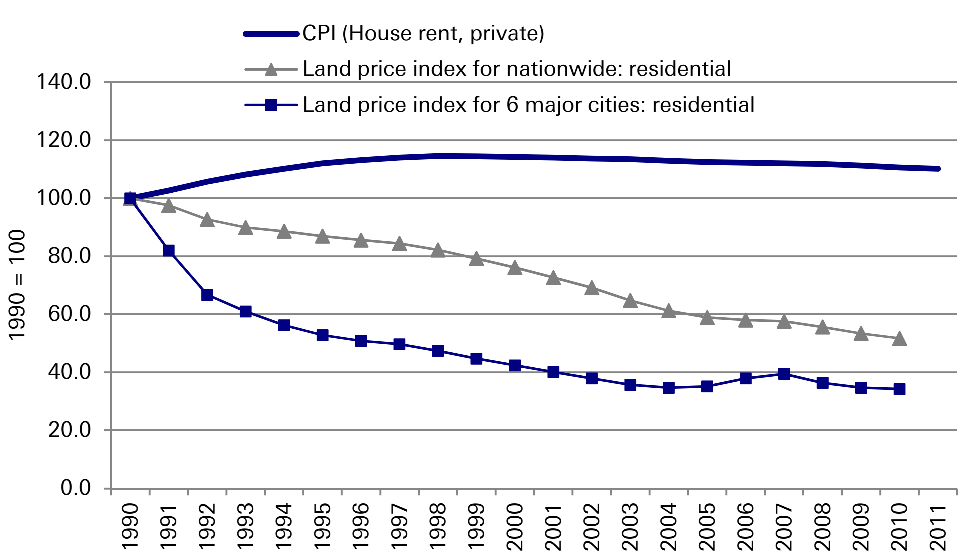
Why high net worth individuals invest in real estate

The bubble economy's collapse also brought steep falls in real estate prices. However, rents for residential real estate have risen more than 10% compared with 1990. High net worth individuals thus view real estate as an investment offering stable and high returns. Favorable tax treatment of property inheritance is a further incentive for real estate investment. The advantages are 1) the taxable value of a property at the time of inheritance is lower than would be the same amount of received cash and deposits (inheritance tax can be reduced) and 2) not only can real estate be passed on to children at a taxable value lower than the property's market value, but when the heirs sell the property, for tax purposes they use the price at which their parents acquired the property rather than the low value (taxable value) at which they inherited it. In other words, there is little likelihood of any tax on transfer profits.

Investment in residential REITs offers potential stable returns

We think residential REITs are a suitable proxy for investing in residential real estate that offers stable rents even in a deflationary environment. The distribution yield for residential RIETs is currently about 6%, and we think they are one of few yen-asset investments offering potential stable returns.

Figure 24: Highly attractive with steady rent level and lower real estate prices



Source: Ministry of Internal Affairs and Communications, Japan Real Estate Institute

Part 13

Joint reform of the tax and social security systems: a real estate industry perspective

A joint approach to tax and social security reform is now being debated in the diet. A hike in the consumption tax has become the central topic of the discussion. From the perspective of the real estate sector, however, the increase in inheritance taxes that is now being considered can potentially have a much greater impact on property prices. Real estate investment is commonly viewed as a simple and effective means of dealing with inheritance taxes, and we believe expectations for deflation to end and an increase in inheritance taxes is likely to boost the real estate market beyond a steady recovery to a period of real activity.

Substantial decrease in basic allowance: tax reform could saddle renters with losses

If the legislation before the diet is passed, the fixed portion of the basic allowance for inheritance taxes will be decreased from ¥50m at this time to ¥30m, and the proportional deduction for each legal heir will be reduced from ¥10m to ¥6m. For example, in the case of inheritance received by a wife and 2 children, under current legislation the standard deduction would equal ¥80m, but under the new proposal, this would be lowered to ¥48m (Figure 25).

Higher taxes to stimulate real estate investment for tax saving

Tax rates will also be increased. The tax rate on assets with assessed value in excess of ¥600m will be increased from 50% to 55% (See Figure 26). It is well know that real estate investment is a simple and effective means of dealing with inheritance taxes. For example, the assessed value of a tower-type condo is lowered on average by about 70%. The assessed value of ¥100m in cash is still ¥100m, but if this is used to purchase a high-rise condominium, the taxable assessed value is only ¥30m and it is thus possible to reduce the taxable assessed value of the asset by ¥70m (Figure 27).

Figure 25: Details of the increase in inheritance taxes

Basic exemption

- From ¥50m to ¥30m

Statutory heir

- From ¥10m to ¥6m

Non-taxable insurance payment after death of insured

- ¥5m x number of legal heirs
- (Unchanged, but stipulation of cohabitation added except for minors and persons with disabilities)

Tax rate and maximum rate

- From 6 brackets to 8, maximum rate from 50% to 55%

Source: Ministry of Finance

Figure 26: Inheritance taxes, tax rate structure

Current		Proposed	
Taxable amount	Tax rate	Taxable amount	Tax rate
¥10m or less	10%	¥10m or less	10%
¥30m or less	15%	¥30m or less	15%
¥50m or less	20%	¥50m or less	20%
¥100m or less	30%	¥100m or less	30%
¥300m or less	40%	¥200m or less	40%
-	-	¥300m or less	45%
Over ¥300m	50%	¥600m or less	50%
-	-	Over ¥600m	55%

Source: Ministry of Finance

Figure 27: Tax saving alternatives

- Purchase of investment real estate

  Rental income + reduction in assessed valuation

- Construction of apartment building

  When owner doesn't want to part with large lot

- Purchase luxury brand items, luxury cars, country club memberships

  Price declines as soon as purchased, but can be sold for cash

- Acquire investment real estate and give as gift

  Utilize ¥25m system for settlement at time of inheritance

- Large-scale renovation

  Assessed valuation does not change after renovation

Source: Deutsche Securities

Part 14

Official land price data due 22 March; impact on share prices likely negligible

Official land price data is scheduled for release on 22 March. Land prices (all regions, all uses) in 2011 declined 3.0% YoY, but this marked an improvement from the 4.6% drop in 2010. This year's data will include the impact from the earthquake, so the rate of decline on a nationwide basis is unlikely to ease by much. However, we expect land prices in the Tokyo area to improve further. We do not put too much importance on land price data because it is a lagging indicator, and we expect little impact on sector share prices.

Official land price data does not reflect actual conditions

Figure 28 shows official land price data released since 1988. According to the data, land prices (all uses) in the Tokyo area rose 65.3% in 1988. Prices subsequently fell from 1992 until 2006. We now know that the actual real estate market turned up in 2004 and developed into a mini bubble between 2006 and 2008. Data compiled by the Japan Real Estate Institute show that prices in Tokyo's premium real estate areas rose sharply during this period (Figure 29). Share prices also jumped in 2005.

Real estate sector share price gains tend to accelerate when the CPI turns positive.

We therefore focus closely on trends in the CPI. We believe the CPI's return to positive territory, fueling expectations that Japan had overcome deflation, was the reason behind the strong growth in the real estate market from 2003 through 2007 (Figure 30). We think the strong gains for the sector since the start of 2012 show that the market is beginning to factor in similar expectations. These gains are likely to accelerate if the CPI turns positive again.

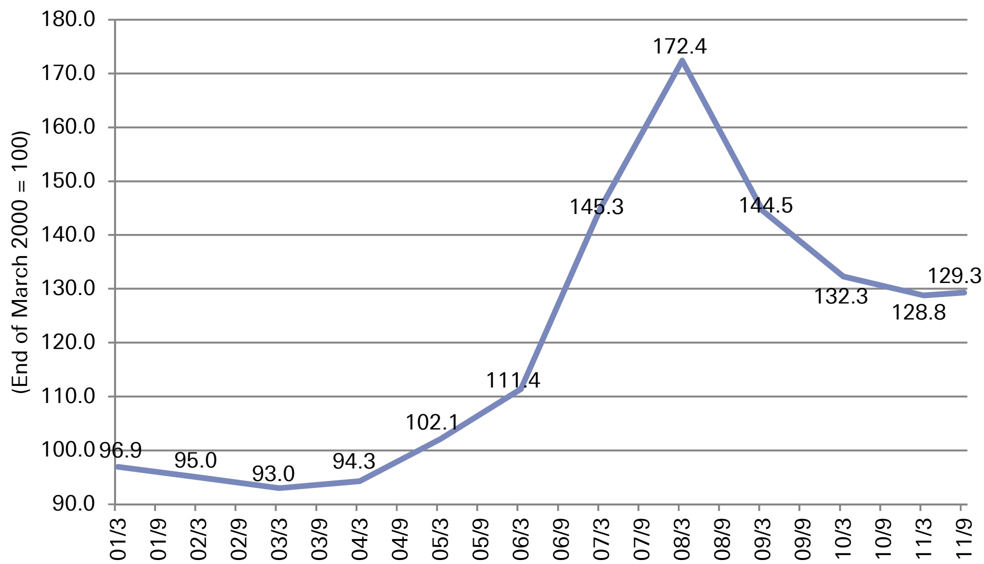
Figure 28: Official land price survey (historical changes)

	Year	88	89	90	91	92	93	94	95	96	97	98	99
Residential	**Tokyo metropolitan area**	**68.6**	**0.4**	**6.6**	**6.6**	**-9.1**	**-14.6**	**-7.8**	**-2.9**	**-5.0**	**-3.4**	**-3.0**	**-6.4**
	Osaka metropolitan area	18.6	32.7	56.1	6.5	-22.9	-17.1	-6.8	-1.9	-4.3	-2.2	-1.5	-5.2
	Nagoya metropolitan area	7.3	16.4	20.2	18.8	-5.2	-8.6	-6.1	-4.0	-3.6	-1.7	-0.8	-3.3
	Three major metropolitan areas	46.6	11.0	22.0	8.0	-12.5	-14.5	-7.3	-2.8	-4.6	-2.8	-2.2	-5.7
	Local area	1.9	4.4	11.4	13.6	2.3	-1.7	-1.2	-0.3	-0.6	-0.4	-0.6	-1.9
	Nationwide	25.0	7.9	17.0	10.7	-5.6	-8.7	-4.7	-1.6	-2.6	-1.6	-1.4	-3.8
Commercial	**Tokyo metropolitan area**	**61.1**	**3.0**	**4.8**	**4.1**	**-6.9**	**-19.0**	**-18.3**	**-15.4**	**-17.2**	**-13.2**	**-8.2**	**-10.1**
	Osaka metropolitan area	37.2	35.6	46.3	8.1	-19.5	-24.2	-19.1	-15.3	-15.8	-9.9	-6.8	-9.6
	Nagoya metropolitan area	16.8	21.0	22.4	19.1	-7.6	-13.7	-11.5	-12.7	-12.6	-8.5	-6.2	-11.2
	Three major metropolitan areas	46.6	14.1	18.6	8.1	-10.3	-19.2	-17.2	-14.8	-16.0	-11.5	-7.5	-10.2
	Local area	5.4	7.6	15.4	16.3	0.4	-5.6	-5.9	-5.5	-5.8	-5.4	-5.1	-6.8
	Nationwide	21.9	10.3	16.7	12.9	-4.0	-11.4	-11.3	-10.0	-9.8	-7.8	-6.1	-8.1
Average	**Tokyo metropolitan area**	**65.3**	**1.8**	**7.2**	**7.0**	**-8.4**	**-14.9**	**-9.4**	**-5.0**	**-7.0**	**-5.1**	**-3.9**	**-7.1**
	Osaka metropolitan area	19.8	32.1	53.9	6.8	-21.3	-17.4	-8.5	-4.0	-6.0	-3.4	-2.3	-5.9
	Nagoya metropolitan area	8.3	16.4	19.9	18.4	-5.1	-9.3	-6.9	-5.6	-5.2	-3.0	-1.9	-4.9
	Three major metropolitan areas	43.8	12.2	22.1	8.5	-11.6	-14.7	-8.8	-4.8	-6.4	-4.3	-3.2	-6.4
	Local area	2.4	4.8	11.7	13.8	1.9	-2.3	-2.0	-1.2	-1.8	-1.6	-1.7	-3.0
	Nationwide	21.7	8.3	16.6	11.3	-4.6	-8.4	-5.6	-3.0	-4.0	-2.9	-2.4	-4.6

	Year	00	01	02	03	04	05	06	07	08	09	10	11
Residential	**Tokyo metropolitan area**	**-6.8**	**-5.8**	**-5.9**	**-5.6**	**-4.7**	**-3.2**	**-0.9**	**3.6**	**5.5**	**-4.4**	**-4.9**	**-1.7**
	Osaka metropolitan area	-6.1	-6.7	-8.6	-8.8	-8.0	-5.2	-1.6	1.8	2.7	-2.0	-4.8	-2.4
	Nagoya metropolitan area	-1.8	-1.9	-4.4	-5.6	-4.9	-3.3	-1.3	1.7	2.8	-2.8	-2.5	-0.6
	Three major metropolitan areas	-5.9	-5.6	-6.5	-6.5	-5.7	-3.7	-1.2	2.8	4.3	-3.5	-4.5	-1.8
	Local area	-2.3	-2.8	-4.0	-5.1	-5.7	-5.4	-4.2	-2.7	-1.8	-2.8	-3.8	-3.6
	Nationwide	-4.1	-4.2	-5.2	-5.8	-5.7	-4.6	-2.7	0.1	1.3	-3.2	-4.2	-2.7
Commercial	**Tokyo metropolitan area**	**-9.6**	**-8.0**	**-7.4**	**-5.8**	**-4.5**	**-2.5**	**1.0**	**9.4**	**12.2**	**-6.1**	**-7.3**	**-2.5**
	Osaka metropolitan area	-11.3	-11.0	-11.3	-10.2	-8.8	-5.0	0.8	8.3	7.2	-3.3	-7.4	-3.6
	Nagoya metropolitan area	-7.3	-5.6	-8.1	-8.0	-6.0	-3.3	0.9	7.8	8.4	-5.9	-6.1	-1.2
	Three major metropolitan areas	-9.6	-8.3	-8.5	-7.1	-5.8	-3.2	1.0	8.9	10.4	-5.4	-7.1	-2.5
	Local area	-7.0	-7.0	-8.1	-8.7	-8.7	-7.5	-5.5	-2.8	-1.4	-4.2	-5.3	-4.8
	Nationwide	-8.0	-7.5	-8.3	-8.0	-7.4	-5.6	-2.7	2.3	3.8	-4.7	-6.1	-3.8
Average	**Tokyo metropolitan area**	**-7.4**	**-6.4**	**-6.4**	**-5.9**	**-4.9**	**-3.2**	**-0.7**	**4.6**	**6.7**	**-4.7**	**-5.4**	**-1.9**
	Osaka metropolitan area	-6.9	-7.4	-9.1	-9.1	-8.3	-5.4	-1.4	2.7	3.4	-2.3	-5.3	-2.7
	Nagoya metropolitan area	-3.0	-2.8	-5.3	-6.1	-5.3	-3.5	-1.0	2.8	3.8	-3.5	-3.3	-0.8
	Three major metropolitan areas	-6.6	-6.1	-6.9	-6.8	-5.9	-3.9	-0.9	3.8	5.3	-3.8	-5.0	-2.0
	Local area	-3.4	-3.8	-5.0	-6.0	-6.5	-6.0	-4.6	-2.8	-1.8	-3.2	-4.2	-3.9
	Nationwide	-4.9	-4.9	-5.9	-6.4	-6.2	-5.0	-2.8	0.4	1.7	-3.5	-4.6	-3.0

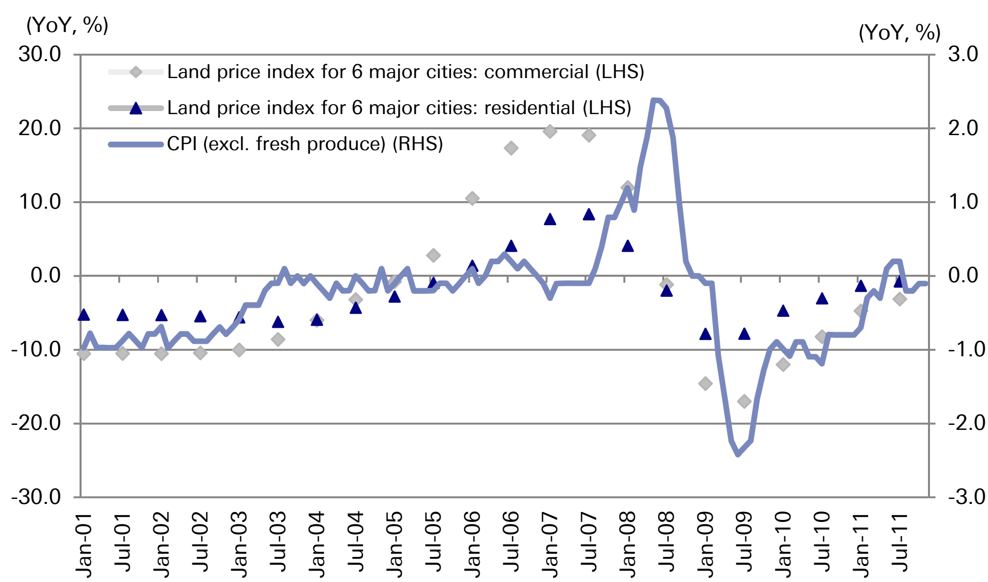
Note: YoY, %
Source: Ministry of Land, Infrastructure, Transport and Tourism

Figure 29: Urban Land Index (highest priced lots in Tokyo 23-wards)



Source: Japan Real Estate Institute

Figure 30: CPI and land price index



Source: Ministry of Internal Affairs and Communications, Japan Real Estate Institute

Appendix 1

Important Disclosures

Additional information available upon request

For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuers and the securities of those issuers. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report. Yoji Otani

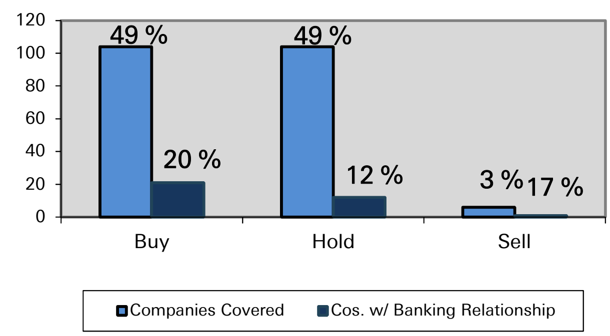
Equity rating key

Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield) , we recommend that investors buy the stock.
Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock
Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.
Notes:

1. Newly issued research recommendations and target prices always supersede previously published research.
2. Ratings definitions prior to 27 January, 2007 were:

    Buy: Expected total return (including dividends) of 10% or more over a 12-month period
    Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period
    Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

Equity rating dispersion and banking relationships



Japan Universe

Regulatory Disclosures

1. Important Additional Conflict Disclosures

Aside from within this report, important conflict disclosures can also be found at https://gm.db.com/equities under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

2. Short-Term Trade Ideas

Deutsche Bank equity research analysts sometimes have shorter-term trade ideas (known as SOLAR ideas) that are consistent or inconsistent with Deutsche Bank's existing longer term ratings. These trade ideas can be found at the SOLAR link at http://gm.db.com.

3. Country-Specific Disclosures

Australia and New Zealand: This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act respectively.
Brazil: The views expressed above accurately reflect personal views of the authors about the subject company(ies) and its(their) securities, including in relation to Deutsche Bank. The compensation of the equity research analyst(s) is indirectly affected by revenues deriving from the business and financial transactions of Deutsche Bank.
EU countries: Disclosures relating to our obligations under MiFiD can be found at http://www.globalmarkets.db.com/riskdisclosures.
Japan: Disclosures under the Financial Instruments and Exchange Law: Company name - Deutsche Securities Inc. Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association, The Financial Futures Association of Japan, Japan Securities Investment Advisers Association. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless “Japan” or "Nippon" is specifically designated in the name of the entity.
Russia: This information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Deutsche Bank Group

Markets Research

Deutsche Securities Inc.

Asia-Pacific locations

Deutsche Bank AG
Deutsche Bank Place
Level 16
Corner of Hunter & Phillip Streets
Sydney, NSW 2000
Australia
Tel: (61) 2 8258 1234

Deutsche Bank AG
Filiale Hongkong
International Commerce Centre,
1 Austin Road West,Kowloon,
Hong Kong
tel: (852) 2203 8888

Deutsche Equities India Pte Ltd
3rd Floor, Kodak House
222, Dr D.N. Road
Fort, Mumbai 400 001
SEBI Nos: INB231196834
INB011196830, INF231196834
Tel: (91) 22 6658 4600

Deutsche Securities Inc.
2-11-1 Nagatacho
Sanno Park Tower
Chiyoda-ku, Tokyo 100-6171
Japan
Tel: (81) 3 5156 6770

Deutsche Bank (Malaysia) Berhad
Level 18-20
Menara IMC
8 Jalan Sultan Ismail
Kuala Lumpur 50250
Malaysia
Tel: (60) 3 2053 6760

In association with
Deutsche Regis Partners, Inc.
Level 23, Tower One
Ayala Triangle, Ayala Avenue
Makati City, Philippines
Tel: (63) 2 894 6600

Deutsche Securities Korea Co.
17th Floor, YoungPoong Bldg.,
33 SeoRin-Dong,
Chongro-Ku, Seoul (110-752)
Republic of Korea
Tel: (82) 2 316 8888

Deutsche Bank AG
Singapore
One Raffles Quay
South Tower
Singapore 048583
Tel: (65) 6423 8001

Deutsche Securities Asia Ltd
Taiwan Branch
Level 6
296 Jen-Ai Road, Sec 4
Taipei 106
Taiwan
Tel: (886) 2 2192 2888

In association with
TISCO Securities Co., Ltd
TISCO Tower
48/8 North Sathorn Road
Bangkok 10500
Thailand
Tel: (66) 2 633 6470

In association with
PT Deutsche Verdhana Indonesia
Deutsche Bank Building,
6th Floor, Jl. Imam Bonjol No.80,
Central Jakarta,
Indonesia
Tel: (62 21) 318 9541

International locations

Deutsche Bank Securities Inc.
60 Wall Street
New York, NY 10005
United States of America
Tel: (1) 212 250 2500

Deutsche Bank AG London
1 Great Winchester Street
London EC2N 2EQ
United Kingdom
Tel: (44) 20 7545 8000

Deutsche Bank AG
Große Gallusstraße 10-14
60272 Frankfurt am Main
Germany
Tel: (49) 69 910 00

Deutsche Bank AG
Deutsche Bank Place
Level 16
Corner of Hunter & Phillip Streets
Sydney, NSW 2000
Australia
Tel: (61) 2 8258 1234

Deutsche Bank AG
Filiale Hongkong
International Commerce Centre,
1 Austin Road West,Kowloon,
Hong Kong
Tel: (852) 2203 8888

Deutsche Securities Inc.
2-11-1 Nagatacho
Sanno Park Tower
Chiyoda-ku, Tokyo 100-6171
Japan
Tel: (81) 3 5156 6770

Global Disclaimer

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. Deutsche Bank makes no representation as to the accuracy or completeness of such information.

Deutsche Bank may engage in securities transactions, on a proprietary basis or otherwise, in a manner **inconsistent** with the view taken in this research report. In addition, others within Deutsche Bank, including strategists and sales staff, may take a view that is **inconsistent** with that taken in this research report.

Opinions, estimates and projections in this report constitute the current judgement of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof in the event that any opinion, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Prices and availability of financial instruments are subject to change without notice. This report is provided for informational purposes only. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst judgement.

As a result of Deutsche Bank's March 2010 acquisition of BHF-Bank AG, a security may be covered by more than one analyst within the Deutsche Bank group. Each of these analysts may use differing methodologies to value the security; as a result, the recommendations may differ and the price targets and estimates of each may vary widely.

In August 2009, Deutsche Bank instituted a new policy whereby analysts may choose not to set or maintain a target price of certain issuers under coverage with a Hold rating. In particular, this will typically occur for "Hold" rated stocks having a market cap smaller than most other companies in its sector or region. We believe that such policy will allow us to make best use of our resources. Please visit our website at http://gm.db.com to determine the target price of any stock.

The financial instruments discussed in this report may not be suitable for all investors and investors must make their own informed investment decisions. Stock transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Deutsche Bank may with respect to securities covered by this report, sell to or buy from customers on a principal basis, and consider this report in deciding to trade on a proprietary basis.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. In the U.S. this report is approved and/or distributed by Deutsche Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany this report is approved and/or communicated by Deutsche Bank AG Frankfurt authorized by the BaFin. In the United Kingdom this report is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange and regulated by the Financial Services Authority for the conduct of investment business in the UK and authorized by the BaFin. This report is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. This report is distributed in Singapore by Deutsche Bank AG, Singapore Branch, and recipients in Singapore of this report are to contact Deutsche Bank AG, Singapore Branch in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), Deutsche Bank AG, Singapore Branch accepts legal responsibility to such person for the contents of this report. In Japan this report is approved and/or distributed by Deutsche Securities Inc. The information contained in this report does not constitute the provision of investment advice. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10). Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published by any person for any purpose without Deutsche Bank's prior written consent. Please cite source when quoting.