Research Report

Japan Real Estate
Third Quarter 2016

July 2016

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1 Executive Summary

— **Macro Economy:** External concerns over China’s slowdown and the possible impacts from the U.K.’s referendum to leave the European Union (EU) could cause a further lull in Japan's economy in the latter half of the year with the Nikkei stock market plunging about 13% since the start of 2016 to mid July. The sentiment deteriorated in the manufacturing sector due to the appreciation of the Japanese yen. The negative interest rate policy has proved ineffective in turning the exchange rate around thus far.

— **Capital and Investment Market:** Cap rates remain under further downward pressure because of the negative rate policy signaling stronger capital flows into the real estate market. Fuelled by yield seeking investors the J-REIT index performed better and more stable than the general stock market amid volatility. Accordingly listed J-REITs became once again the dominant purchaser group in the investment market which accounted for more than 60% of all the transaction volume over the last six months.

— **Real Estate Market Fundamentals:** Leasing markets and real estate fundamentals remain healthy overall while there are deteriorations observed in some sectors, such as logistics. Office vacancy rates recovered in all major cities in Japan in the second quarter of 2016 while rents struggled to make a recovery in the industrial sector despite the low vacancy rates. Rents were broadly flat in the retail and the residential sectors after they made significant increases over the course of last year.

— **Research Topic: Impact of Negative Interest Rate:** Although the impact of the negative interest rate on the real economy remains uncertain, it started to gradually change the capital market landscape. The two main trends among investors include higher allocation to alternative space and more global diversification. This includes direct asset purchases together with investments through funds, REITs, mutual funds and similar products, affecting both institutional and retail investors. Through global diversification, the impact is spreading out in those countries with positive interest rates, such as the United States and the United Kingdom.
2 Macro Economy

Japan’s GDP grew annualized 1.9% in the first quarter of 2016 compared to the previous quarter but 0.0% on a year-on-year basis. Growth recorded in the second quarter is estimated to be minimal again on a year-on-year basis, due to the unfavourable currency exchange rate. External concerns over China’s slowdown and the possible impact from the U.K.’s referendum to leave the E.U. could cause a further lull in the economy in the latter half of the year while domestic consumer demand remained muted. GDP is now expected to grow only 0.4% in 2016.

Notes: E = preliminary estimate, F = forecast, there is no guarantee forecast growth will materialise. Please refer to Important Notes (see end of report). Past growth is not a reliable indicator of future growth

Sources: Deutsche Bank “Japan Economics Weekly.” As of Jul 2016
Past performance is not a reliable indicator of future performance

Japan’s corporate sector is also affected by these uncertainties. The latest results of the Diffusion Index (DI) of the Tankan Survey conducted by the Bank of Japan declined marginally from 13 points in March 2016 to a reading of 12, the worst level in almost three years - and this could go down further following the result of the U.K. referendum. The sentiment change is more evident in the manufacturing sector than the service sector due to the unfavourable currency exchange rate that is affecting the export led industries.

Notes: Past performance is not a reliable indicator of future performance

Sources: Bank of Japan, Japan’s Cabinet Office, Deutsche Asset Management. As of Jul 2016
Past performance is not a reliable indicator of future performance
The Nikkei 225 index experienced about a 13% decline since the start of 2016 to mid July. The drop was led by the U.K. referendum, with the appreciation of the Japanese yen strengthening the downward trend further in the stock market. The Japanese yen is now traded at 100 for a US dollar, the highest rate since January 2014.

The yield of Japan’s 10-year government bond (JGB) went down to -0.25% in June amid the financial turbulence caused by the U.K.’s referendum. Core CPI declined to 0.1% in the period due to weak consumer demand, whilst it would sit at 0.6% if energy prices were excluded from the basket. A further policy rate cut might be possible in the latter half of 2016.

Notes: F = forecast, there is no guarantee rates forecasted will materialise. JGB = Japanese Government Bond. CPI = Consumer Price Index. Please refer to Important Notes (see end of report).

Sources: The Bank of Japan, Japan’s Cabinet Office, Deutsche Bank. As of Jul 2016
Past performance is not a reliable indicator of future performance.
3 Capital and Investment Market

3.1 Lending

Credit conditions continuously remain accommodative in Japan\(^2\). The Bank of Japan’s Diffusion Index for lending attitudes of banks to the real estate industry (orange line in Exhibit 5) was an index value of 28 as of June 2016, a marginal increase from the previous quarter. Lending volumes to new projects grew by 16% in the latest survey as of the end of March 2016.

The volume of commercial real estate transactions in Japan in the rolling 12 months to June 2016 was JPY4.3 trillion on a preliminary basis, an 18% drop from six months ago, but it was a marginal increase from the previous quarter. A number of transactions outside the central locations were not successfully executed due to a widening gap in price quotes between the seller and the buyer, while the price remained very tight in central locations.

Notes: E = preliminary estimate. Please refer to Important Notes (see end of report).
Sources: Urban Research Institute, Bank of Japan, Real Capital Analytics, Deutsche Asset Management. As of Jul 2016
Past performance is not a reliable indicator of future performance

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\(^2\) The average LTV for J-REITs is around 40%. Local banks accept 50-60% LTVs for income producing core deals.
3.2 Pricing

The office appraisal cap rates in Tokyo declined to a preliminary 3.4% in the first quarter of 2016, a 51 basis point drop from a year earlier, while compression was also seen in other cities and sectors albeit at a milder pace. Cap rates remain under further downward pressure because of the negative rate policy and therefore stronger capital flow into the real estate market\(^3\). The average office yield spread — the difference between the cap rates and 10 year bond yields — widened to 470 basis points in Tokyo in the second quarter of 2016 given the negative government bond yield.

\[\text{Exhibit 7 — Cap Rate and Yield Spread}\]

\[\text{Exhibit 8 — Real Estate Capital Value in Japan}\]

The capital value for grade-A office in Central Tokyo was JPY8.2 million per tsubo\(^4\) in March 2016. It was a 4.2% increase from the previous quarter and 28% below the previous peak recorded in 2008. The unit price of office buildings follows about one year behind the listed J-REIT index, and a further mild value increase is anticipated ahead given the recent level of the J-REIT index.

Sources: Daiseikai Real Estate Appraisal, Bloomberg, Deutsche Asset Management. As of Jul 2016
Past performance is not a reliable indicator of future performance

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\(^3\) Please see the topic chart,“Impact of the Negative Interest Rate”.

\(^4\) Tsubo is a Japanese unit of area. It is equivalent to 3.3 square metres (35.6 square feet)
3.3 Transactions

Exhibit 9 shows major real estate transactions completed or announced since April 2016 where listed J-REITs remained the dominant buyers group in the office, retail and industrial sectors respectively. The largest transaction by value was the acquisition of Hotel Grand Pacific LE DAIBA by Hulic for JPY 67 billion, followed by a portfolio deal acquired by Star Asia REIT for JPY 62 billion. The tightest cap rates reported in the period was Mansar Daikanyama in Tokyo at 4.0% acquired by Japan Excellent (a J-REIT). On top of Grand Pacific LE DAIBA a number of transactions continued to be reported in the hospitality sector reflecting strong interest among investors.

Exhibit 9 — Major Transactions in the First Quarter 2016

<table>
<thead>
<tr>
<th>Type</th>
<th>Asset</th>
<th>Price (JPY bn)</th>
<th>Unit price (JPY/m²)</th>
<th>Cap rate (%)</th>
<th>Location</th>
<th>Month</th>
<th>Acquired by</th>
<th>Investor Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>Shinagawa Seaside East Tower etc (5 props)</td>
<td>49</td>
<td>5.58</td>
<td>4.5%</td>
<td>Tokyo</td>
<td>Jun-16</td>
<td>Invesco J-REIT</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>MG ikebukuro Bldg etc (8 props)</td>
<td>21</td>
<td>0.66</td>
<td>4.3%</td>
<td>Tokyo etc</td>
<td>May-16</td>
<td>Ichigo Office REIT</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>Mansard Daikanyama</td>
<td>11</td>
<td>1.36</td>
<td>4.0%</td>
<td>Tokyo</td>
<td>Jun-16</td>
<td>Japan Excellent</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>Osaka Nisshimoto-cho Bldg etc (5 props)</td>
<td>8</td>
<td>0.26</td>
<td>5.6%</td>
<td>Osaka etc</td>
<td>May-16</td>
<td>Ichigo Office REIT</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>Forecast Sakaisuji Hommachi</td>
<td>9</td>
<td>0.55</td>
<td>-</td>
<td>Osaka</td>
<td>Mar-16</td>
<td>Deutsche AM</td>
<td>Germany</td>
</tr>
<tr>
<td></td>
<td>CLINAS TOWER</td>
<td>1</td>
<td>0.43</td>
<td>-</td>
<td>Osaka</td>
<td>Feb-16</td>
<td>Keong Hong Holdings</td>
<td>Singapore</td>
</tr>
<tr>
<td></td>
<td>88% of Umeda Gate Tower</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Osaka</td>
<td>Mar-16</td>
<td>Phoenix Property</td>
<td>Hong Kong</td>
</tr>
<tr>
<td></td>
<td>Onze1852</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Tokyo</td>
<td>Mar-16</td>
<td>BILLION SIGHT</td>
<td>Hong Kong</td>
</tr>
<tr>
<td></td>
<td>Hitachi Solutions Tower B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Tokyo</td>
<td>Jan-16</td>
<td>Morgan Stanley</td>
<td>U.S.</td>
</tr>
<tr>
<td>Retail</td>
<td>Koinan Sunbadabashi etc (7 props)</td>
<td>27</td>
<td>0.35</td>
<td>5.1%</td>
<td>Aichi etc</td>
<td>Mar-16</td>
<td>Kenedix Retail REIT</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>Mallage Saga, Fessu Asahikawa</td>
<td>6</td>
<td>0.08</td>
<td>-</td>
<td>Saga etc</td>
<td>Mar-16</td>
<td>Crossus Retail Trust</td>
<td>Singapore</td>
</tr>
<tr>
<td>Industrial</td>
<td>GLP-MFLP Ichikawa Shiohama</td>
<td>16</td>
<td>0.30</td>
<td>4.6%</td>
<td>Chiba</td>
<td>Jun-16</td>
<td>GLP J-REIT</td>
<td>J-REIT</td>
</tr>
<tr>
<td>Apartment</td>
<td>Daffito Namba Higashih</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Osaka</td>
<td>Mar-16</td>
<td>AXA</td>
<td>France</td>
</tr>
<tr>
<td>Hotel/Healthcare</td>
<td>Hotel Grand Pacific LE DAIBA</td>
<td>Es167</td>
<td>-</td>
<td>-</td>
<td>Tokyo</td>
<td>May-16</td>
<td>Hulic</td>
<td>Japan</td>
</tr>
<tr>
<td></td>
<td>Urawa Royal pines</td>
<td>18</td>
<td>-</td>
<td>5.8%</td>
<td>Saitama</td>
<td>Apr-16</td>
<td>United Urban</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>Hotel Sun plaza Sakai</td>
<td>11</td>
<td>-</td>
<td>5.6%</td>
<td>Osaka</td>
<td>Mar-16</td>
<td>SIS International Holdings</td>
<td>Hong Kong</td>
</tr>
<tr>
<td>Portfolio</td>
<td>Asahi Bldg etc (18 props)</td>
<td>62</td>
<td>-</td>
<td>-</td>
<td>Tokyo etc</td>
<td>Apr-16</td>
<td>Star Asia REIT</td>
<td>J-REIT</td>
</tr>
<tr>
<td></td>
<td>Landport Kashiwanuma minami etc (10 props)</td>
<td>16</td>
<td>0.21</td>
<td>-</td>
<td>Chiba etc</td>
<td>May-16</td>
<td>Nomura RE Master Fund</td>
<td>J-REIT</td>
</tr>
</tbody>
</table>

Notes: Acquisitions by foreign managers are highlighted in gray and by J-REITs in yellow. This table is prepared solely for information purposes and not intended to recommend or endorse any specific company’s shares or other products. Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such.

Source: Real Capital Analytics; Deutsche Asset Management, July 2016

Tokyo’s volume of commercial real estate transactions for the rolling 12-month period ended June 2016 was US$23.3 billion, flat from the previous period ended March 2016. It maintained the sixth position among global cities and kept the first position in the Asia Pacific region. According to our own estimates 38% of transactions in Tokyo were purchases by listed J-REITs, an increase from 33% from the previous 12 months till March 2016, and 14% by foreign capital respectively. Osaka reported US$ 4.7 billion for the same period, ranking eighth in Asia Pacific with similar transaction volumes to Beijing and Seoul.

Exhibit 10 — Real Estate Transaction Volume by City (12 months rolling)

![Graph showing real estate transaction volume by city]

Notes: Commercial real estate transactions exclude non-income producing assets, such as development site transactions.

Sources: Real Capital Analytics, Deutsche Asset Management. As of Jul 2016
3.4 Performance

The average annual total return for unlevered direct real estate investment in Japan rose to 8.7% in February 2016 (the latest period available), from 8.1% a year earlier. Among property sectors, the industrial sectors made the highest annual return of 9.6% during the period, followed by residential (8.4%), retail (8.0%) and then office sectors (7.7%) respectively.

Exhibit 11 — Real Estate Total Returns in Japan (unlevered)

<table>
<thead>
<tr>
<th>Total Return by Component</th>
<th>Total Return by Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Return</strong></td>
<td><strong>Office</strong></td>
</tr>
<tr>
<td><strong>Income Return</strong></td>
<td><strong>Retail</strong></td>
</tr>
<tr>
<td><strong>Capital Growth</strong></td>
<td><strong>Residential</strong></td>
</tr>
<tr>
<td><strong>preliminary</strong></td>
<td><strong>Industrial</strong></td>
</tr>
</tbody>
</table>

Notes: There is a time lag because of raw data being collected through semi-annual reports. Past performance is not indicative of future results
Sources: MSCI Real Estate - IPD, Deutsche Asset Management. As of Jul 2016

3.5 J-REITs

J-REITs became a popular product among yield seeking investors after the implementation of the negative rate while the general stock market remained soft. As of mid July 2016, J-REIT stock traded at a 5.8% premium since the beginning of the year even after the financial turbulence of the U.K.’s referendum to leave the E.U., while the Nikkei 225 experienced more than 13% decline in the same period.

Exhibit 12 — J-REIT Index and Long-Term Global Comparison

<table>
<thead>
<tr>
<th>J-REIT Index and Nikkei 225 (5-year)</th>
<th>Global REIT Comparison (10-year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J-REIT Index (LHS)</td>
<td><strong>US-REIT</strong></td>
</tr>
<tr>
<td>Nikkei 225 (RHS)</td>
<td><strong>A-REIT (Australia)</strong></td>
</tr>
<tr>
<td><strong>S-REIT (Singapore)</strong></td>
<td>(Mar-09 = 100)</td>
</tr>
</tbody>
</table>

Notes: Past performance is not indicative of future results. Tokyo Stock Exchange REIT Index (J-REIT), FTSE NAREIT All Equity REITs Index (US-REIT), S&P/ASX 200 A REIT Index (A-REIT), FTSE ST REIT Index (S-REIT)
Sources: Bloomberg, Deutsche Asset Management. As of Jul 2016
On average, the J-REIT dividend yield was 3.32% overall and 2.89% for office REITs in May 2016. The spread over the 10 year government bond yield remained at an attractive level of 340 basis points in Japan in May 2016, compared to 200 basis points spreads for the U.K. and U.S. REITs.

**Exhibit 13 — J-REIT Expected Dividend Yield**

![Graph showing J-REIT, Office REIT, and 10Y JGB spreads over time.]

Notes: Past performance is no guarantee of future results. JGB = Japanese Government Bond.
Sources: Bloomberg, Deutsche Asset Management. As of Jul 2016

The amount of capital raised by J-REITs was JPY315 billion in the trailing six months ended June 2016, a 5% increase from the previous period. The J-REIT market once again experienced an influx of capital due to the negative interest rate with equity raising activity expected to intensify over the course of the year. Star Asia REIT made an initial public offering in April 2016 while United Urban (existing REIT) made a public offering in May.

**Exhibit 14 — Capital Raising and Transactions by REITs in Japan**

<table>
<thead>
<tr>
<th>Name of REIT</th>
<th>Month</th>
<th>JPY bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Urban</td>
<td>May-16</td>
<td>35</td>
</tr>
<tr>
<td>Invincible</td>
<td>Mar-16</td>
<td>36</td>
</tr>
<tr>
<td>Hulic REIT</td>
<td>Mar-16</td>
<td>29</td>
</tr>
<tr>
<td>Kenedix Retail REIT</td>
<td>Mar-16</td>
<td>17</td>
</tr>
<tr>
<td>other POs</td>
<td>Jan-Jun</td>
<td>74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>191</td>
</tr>
</tbody>
</table>

**Initial Public Offerings**

<table>
<thead>
<tr>
<th>Name of REIT</th>
<th>Month</th>
<th>JPY bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Star Asia REIT</td>
<td>Apr-16</td>
<td>23</td>
</tr>
<tr>
<td>LaSalle Logiport REIT</td>
<td>Feb-16</td>
<td>101</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>124</td>
</tr>
</tbody>
</table>

**Planned:** Marimo (diversified), List (diversified)
Mori Trust (hotel), Mitsui Fudosan Logistic Park

Notes: Commercial real estate transactions exclude non-income producing assets, such as development site transactions. This table is prepared solely for information purposes and not intended to recommend or endorse any specific company’s shares or other products. Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such.
Sources: ARES, Nikkei, Deutsche Asset Management. As of Jul 2016
The preliminary volume of commercial real estate transactions in Japan in the six months to June 2016 was JPY 1.4 trillion, a 30% decline from the previous period ended March. Acquisitions by J-REITs accounted for more than 60% of all reported transactions in six months, a large increase from 50.4% in the previous period ended March 2016, or from 39.7% in the period ended in September 2015.

Notes: E = preliminary estimate. Commercial real estate transactions exclude non-income producing assets, such as development site transactions.
Sources: ARES, Urban Research Institute, Real Capital Analytics, Deutsche Asset Management. As of Jul 2016
4 Market Fundamentals

4.1 Office

The average office vacancy rate in Tokyo’s central five wards recovered to 4.1% in June 2016, from 4.3% in March 2016. A couple of large sized buildings were brought to market in the quarter ended in June including Otemachi Financial City Gran Cube and Tokyo Garden Terrace. The average vacancy rate at twenty five newly-developed buildings completed within the last 12 months in Tokyo recovered from 29.4% to 18.8% in the same period.

Despite the gradual recovery in the vacancy rate, the average rent free period offered to office tenants increased two consecutive quarters, from 2.2 months in September 2015 to 2.6 months in December 2015 and further to 3.1 months in March 2016. This indicates tenants still have negotiating power in most occasions and therefore increasing rents would not be an easy negotiation for landlords.
Historically, office rental growth rates have correlated inversely to the vacancy rate. The vacancy rate for buildings with floor plates of 200 tsubos (660 square metres) or more was only 2.7% in Tokyo in March 2016, well below the pivotal 5% threshold associated with rental growth. Average office rents grew by a mild 3.3% accordingly in the period according to Sanko Estate.

The all-class average asking rent recorded a healthy growth of 4.5% in June 2016 from a year earlier, a continuous recovery since 2014. The average rent at newly developed offices also increased by 8.0% from a year earlier but declined by 2.9% from the previous quarter. The headwinds in the corporate sector caused by the strengthening of the Japanese yen remain a concern which could soften space demand especially from the manufacturing companies.

Sources: Miki Shoji, Sanko Estate, Deutsche Asset Management. As of Jul 2016

Notes: F = forecast, there is no guarantee forecast rents will materialise. Please refer to Important Notes (see end of report)
*Tsubo is a Japanese unit of area. It is equivalent to 3.3 square metres (35.6 square feet).
Sources: Miki Shoji, Sanko Estate, Deutsche Asset Management. As of Jul 2016
Vacancy rates have continued to gradually recover in all major regional cities in the quarter ended June 2016. It decreased to 4.2% in Sapporo, 5.6% in Fukuoka, 6.4% in Osaka and 6.8% in Nagoya, respectively recovering from the previous quarter, although there were new completions of office buildings in Fukuoka and Nagoya in the second quarter of 2016. The vacancy rates were at the lowest level in more than 15 years in both Sapporo and Fukuoka.

<table>
<thead>
<tr>
<th>Building</th>
<th>Date</th>
<th>Floors</th>
<th>GFA (sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dai Nagoya Bldg</td>
<td>Nov-15</td>
<td>34</td>
<td>65,000</td>
</tr>
<tr>
<td>JP Tower Nagoya</td>
<td>Nov-15</td>
<td>40</td>
<td>80,000</td>
</tr>
<tr>
<td>JRJP Hakata Bldg (Fukuoka)</td>
<td>Apr-16</td>
<td>12</td>
<td>24,000</td>
</tr>
<tr>
<td>Symphony Toyota Bldg (Nagoya)</td>
<td>Jun-16</td>
<td>25</td>
<td>15,444</td>
</tr>
<tr>
<td>JR Gate Tower (Nagoya)</td>
<td>2017</td>
<td>46</td>
<td>45,030</td>
</tr>
<tr>
<td>Nakanoshima Fes Tw W (Osaka)</td>
<td>2017</td>
<td>41</td>
<td>67,750</td>
</tr>
<tr>
<td>Global Gate West (Nagoya)</td>
<td>2017</td>
<td>36</td>
<td>157,000</td>
</tr>
<tr>
<td>Global Gate East (Nagoya)</td>
<td>2017</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Nishiki 2 chome Project (Nagoya)</td>
<td>2018</td>
<td>21</td>
<td>45,586</td>
</tr>
<tr>
<td>Shin Nankai Kaikan (Osaka)</td>
<td>2018</td>
<td>29</td>
<td>34,650</td>
</tr>
<tr>
<td>Sousei 111 (Sapporo)</td>
<td>2018</td>
<td>28</td>
<td>35,112</td>
</tr>
<tr>
<td>Umeda 3 chome (Osaka)</td>
<td>2019</td>
<td>40</td>
<td>120,000</td>
</tr>
</tbody>
</table>

Notes: There is no guarantee forecast rents will materialise. Please refer to Important Notes (end of report).

GFA = gross floor area. sqm = square metres

Sources: Miki Shoji, Sanko Estate, Deutsche Asset Management. As of Jul 2016
4.2 Retail

High street retail rents were broadly flat in Japan over the fourth quarter of 2015. Rents rose marginally by 0.6% in Omotesando (Tokyo), Ginza (Tokyo) and also in Shinsaibashi (Osaka) respectively in the quarter while they eased in other submarkets of Shinjuku, Shibuya and Ikebukuro (all in Tokyo). Tourist consumption expanded by 31% in the first quarter of 2016 on a year-on-year basis while the growth rate is gradually slowing down.

Sources: Style Act, Miki Shoji, Deutsche Asset Management. As of Jul 2016
Past growth is not a reliable indicator of future growth

Sales at department stores in Tokyo and Osaka declined 2.6% in April and May 2016 compared to the same period last year. Chain stores in Japan posted a decline of 0.7% on the nationwide, while sales at shopping malls across thirteen big cities dropped 1.0% in the period. Department stores which experienced a sales surge last year driven by inbound tourists still attract foreign shoppers but the average spending per customer declined.

Sources: Style Act, Miki Shoji, Deutsche Asset Management. As of Jul 2016
Past growth is not a reliable indicator of future growth

Exhibit 21 — High Street Average Rents in Tokyo and Osaka

Exhibit 22 — Retail Sales Growth by Store Category (year on year)

Excess return is determined by projected income return plus capital appreciation over the local 10 year sovereign bond rate
f = forecast RC= Regional Centres SRC= Sub-regional centres
Note: There is no guarantee the forecasts will materialise
Source: Deutsche Asset Management, Feb 2016
4.3 Residential

Condominium sale prices remained elevated due to the implementation of the negative interest rate by the Bank of Japan and due to the favourable mortgage rate. The average price per unit of newly-built condominiums sold in Greater Tokyo was JPY57.2 million in April and May 2016, still 27% higher than the ten year average of JPY45 million, while the number of condo units sold has not grown for two and a half years. Demand for higher end units among off shore investors has been adversely affected by the strong Japanese yen while demand in the mass market in the suburbs, the popular cluster among the first time buyers, is also subdued.

Sources: Real Estate Economic Institute, Deutsche Asset Management. As of Jul 2016

The recent price elevation among for-sale condos supported healthy underlying demand for rental apartments, while the phase of rental increases appears to be ending. Rents declined marginally, 0.9%, for prime apartments in Central Tokyo (orange line) in the year to March 2016, while they rose marginally by 0.9% in the central fivewards (gray line) for the same period.

Sources: TAS Corporation with data from At Home Co. (23-ward vacancy), Leasing Management Consulting (5-ward asking rent), IPD-RECRUIT Residential Index (23-ward rent index), Miki Shoji. As of Jul 2016
4.4 Industrial

Vacancy rates at multi-tenant logistics assets in Greater Tokyo rose from 2.3% in September 2015 to 4.6% in March 2016 while they declined from 2.3% further to 1.4% in Greater Osaka in the same period. Due to a record number of large scale logistics assets to be brought to market successively both in Greater Tokyo and Greater Osaka, tenants have a wide selection of new assets. Rents strengthened only marginally in Greater Tokyo while they declined by 3% in Greater Osaka compared to a year earlier even with the very tight vacancy rate.

Exhibit 25 — Logistics Leasing Market in Greater Tokyo and Greater Osaka

The annual supply of logistics assets is expected to exceed 1.6 million square meters in Greater Tokyo and 0.6 million square meters in Greater Osaka in 2016, an all time high in both markets, to be followed by continuous above-average supply in 2017. Therefore the vacancy rate is expected to rise to high single digits in Greater Tokyo or even higher in Greater Osaka in the next 6-12 months, before stabilizing in 2018.

Exhibit 26 — Logistics Supply in Greater Tokyo and Greater Osaka

Notes: F = forecast, there is no guarantee forecast returns will materialise. Past performance is not indicative of future results.
Sources: Ichigo Real Estate Service, Deutsche Asset Management. As of Jul 2016
5 Research Topic: Impact of Negative Interest Rate

5.1 Introduction

The European Central Bank introduced a negative interest rate policy (NIRP) in June 2014, followed by the central banks of Switzerland and Sweden and further easing in Denmark. The Bank of Japan followed suit on 29 January 2016 and, more recently, Hungary, on 22 March 2016. There are now six central banks that have introduced negative interest rates as of the end of June 2016, covering 24 countries\(^5\) in total.

**Exhibit 27 — Interest Rates in Selected Countries**

Although the impact of the negative interest rate on the real economy remains uncertain, it started to gradually change the capital market landscape, especially in those countries where long term bond yields are below zero. i.e. Switzerland, Japan and to a lesser degree, Germany. The main trends include the following:

1. **Higher Allocation to Alternative Space**: Investors started to increase allocation to alternative investments, such as real estate and infrastructure, in pursuit of yields. This includes not only direct asset purchases but investments through funds, listed vehicles (such as REITs), and public mutual funds, such as REIT mutual funds in Japan or open ended real estate funds in Germany.

2. **Global Diversification**: There is a trend among investors toward global diversification, which implies capital outflow from the home country. This also includes direct asset purchases together with investments through funds, REITs, mutual funds and similar products.

These trends are observed not just among institutional investors but retail investors who are very quick to adapt new allocation or strategy. Through global diversification, the impact is spreading out in those countries with positive interest rates, such as the United States and the United Kingdom, and changing the capital market landscape.

\(^5\) This includes all 19 Euro zone countries including Germany and France.
5.2 Impact on the Listed Market

Japanese investors reacted very quickly to the announcement of NIRP in January 2016. The J-REIT index started to outperform the general stock market from the day of the announcement and generally this improved performance continues. This is in clear contrast to the previous trend where it underperformed against the Nikkei 225 throughout 2015. The J-REIT index plunged temporarily after the U.K.’s vote to leave the European Union; however, this loss was wiped out by the recovery in the following week. Investors view J-REITs as attractive products with dividend yields hovering around 3.3% on average, while 10-year government bonds are yielding around -0.2% in Japan. Also investors believe that J-REITs should benefit from the decline in borrowing costs due to the lower base rates.

For illustrative purposes only. Past performance is not indicative of future results.
Sources: Bloomberg, Deutsche Asset Management. As of Jul 2016

Fueled by the price recovery in the listed market the purchasing activity by J-REITs is being further strengthened. J-REITs accounted for more than 60% of the total commercial transaction volume reported in the second quarter of 2016 according to preliminary statistics. The cap rates started to further compress, reflecting the tight investment market that is dominated by the J-REITs.

Exhibit 28 — J-REIT Index vs Stock Price (Nikkei 225)

Exhibit 29 — J-REIT Transaction Share and Appraisal Cap Rate in Japan

Sources: Association for Real Estate Securitization, TMAX, Real Capital Analytics, Bloomberg, Deutsche Asset Management. As of Jul 2016
Past performance is not a reliable indicator of future performance
A similar trend is seen in listed REIT and real estate markets in other countries where negative interest rates were introduced. In Sweden for instance, the listed real estate index has outperformed its general stock market since summer in 2015 when the long term bond yield declined to 0.5%.

Exhibit 30 — Stock Price Index in Sweden

![Stock Price Index in Sweden](image)

Sources: Bloomberg, Deutsche Asset Management. As of Jul 2016

A similar trend is now being observed in the listed infrastructure securities market, especially in 2016 as the rate hike pressure in the United States has gradually toned down. The average yield was 4.4% in June 2016 for the Dow Jones Brookfield Global Infrastructure Composite Yield Index (USD), while the 10-year government bond yield declined to 1.5%, providing a 290 basis points spread. The Infrastructure index has therefore been consistently outperforming the general stock market since the beginning of the year.

Exhibit 31 — Global Infrastructure Index vs Stock Price Index

![Global Infrastructure Index vs Stock Price Index](image)

Sources: Bloomberg, Deutsche Asset Management. As of Jul 2016
5.3 Impact on Institutional Investors

While considering their portfolio allocation in the current negative interest rate environment some institutional investors have started to think about increasing weights to the alternative space, including real estate and infrastructure with much of the increase coming from overseas investments. This is especially true in long term negative interest rate countries, i.e. Switzerland since 2015 and also Japan since 2016. Traditionally large Japanese pensions have had very limited allocation to alternative assets, while according to Nikkei one of the big names has plans to increase their allocation to JPY 7 trillion (c.US$70 billion).

Exhibit 32 — Trend in Changing Institutional Investors Allocations

<table>
<thead>
<tr>
<th>Country</th>
<th>Type</th>
<th>Allocation change</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>Insurance</td>
<td>“Real estate generates long-term stable income (ranging from 4% to 7%). As a consequence, it aims to continue to invest directly in properties in good locations and to increase the global diversification of its real estate portfolio.”</td>
<td>The company July 2015</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Insurance</td>
<td>“During 2015 an insurance firm continued to maintain a balanced asset allocation. We also significantly expanded our real estate allocation by 0.7% after a reduction in equity and hedge fund exposures during 2014.”</td>
<td>The company December 2015</td>
</tr>
<tr>
<td>Japan</td>
<td>Insurance</td>
<td>Another 4% will be taken from fixed income and invested in real estate outside Switzerland, with a further 3% of the bond exposure re-portioned to emerging market government bonds in hard currency.</td>
<td>Top 1000 funds February 2016</td>
</tr>
<tr>
<td>Japan</td>
<td>Insurance</td>
<td>14 Japanese insurance firms in total plan to allocate $50 billion to foreign bonds and foreign assets in FY2016.</td>
<td>Nikkei May 2016</td>
</tr>
<tr>
<td>Japan</td>
<td>Pension</td>
<td>One of the world’s largest pension funds in Japan plans to increase share of risk asset investments (alternatives including real estate, infrastructure and private equity) to as much as 5% of its JPY140 trillion in funds (JPY7 trillion), from 0.04% this year.</td>
<td>Nikkei June 2016</td>
</tr>
<tr>
<td>Japan</td>
<td>Bank</td>
<td>One of the largest financial institutions in Japan plans to invest up to JPY6 trillion in its portfolio over next 5 years in alternative investments including real estate and private equity.</td>
<td>Nikkei June 2016</td>
</tr>
<tr>
<td>Japan</td>
<td>Insurance</td>
<td>One of the largest insurers in Japan plans to allocate up to 1% in alternative space out of its JPY 82 trillion portfolio within FY2016. This includes high yield bonds, REITs, overseas private real estate and private equity.</td>
<td>Nikkei July 2016</td>
</tr>
</tbody>
</table>

Notes: This table is prepared solely for information purposes and not intended to recommend or endorse any specific company’s shares or other products. Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such. Sources: Company, Top1000funds, Nikkei, Deutsche Asset Management. As of Jul 2016

5.4 Impact on Retail Investors

REIT mutual funds are popular investment products for retail investors in Japan. The capital flow into the United States and global REIT mutual funds by Japanese investors started to increase in 2016 especially after the long term bond yield moved into negative territory. The net capital outflow from Japan through REIT mutual funds amounted to almost JPY 1 trillion, or US$10 billion, by these investors in the first six months of 2016.

Exhibit 33 — Capital Flow into REIT Mutual Fund by Japanese Individuals

This strong capital flow out of Japan contributed to the recovery of some of the REIT indices in 2016. The US REIT is the most significant example, recovering 16% in the first six months of the year on the back of strong capital flow from Japanese retail investors through mutual fund products.

The impact of the negative interest rate was not so significant in Germany where bond yields were above 0.5% in 2014 but there was a change of tide in 2015. Capital inflow in German open ended real estate funds, popular financial products among German individual investors, started to increase in the beginning of 2015 and the tide became strong in February 2016 when the 10-year government bond yield declined to 0.1%. Capital flows seemed to strengthen when 10-year German government bonds started to yield negatively in June 2016, for the first time in its history, and in 2016 some of the funds decided to suspend new capital applications to avoid excessive liquidity in the funds. Nevertheless the capital inflow to open ended funds amounted to Eur 3.0 billion in the first five months of 2016, with this capital being deployed globally including the United States and Asia Pacific.

5.5 Impact on the Housing Sector

Negative interest rates encourage banks to decrease their mortgage rates, which has resulted in a housing boom in certain countries such as the Nordics. Average housing prices have risen by 19% in Sweden in the last two years till 2015, almost similar growth in the U.K. market where its capital city London saw a capital influx from Asian and global investors at least up until 2015.
### Past Topics of This Report

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<th>Publication</th>
<th>Research Topic</th>
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