A CUSHMAN & WAKEFIELD
RESEARCH PUBLICATION

DATA CENTERS IN JAPAN:

PLUGGING INTO DIGITAL INVESTMENT STREAMS

AUGUST 2017

INSIGHTS INTO ACTION

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SUMMARY

Investing in the “digital” is an emerging opportunity for real estate investors. The rapid rise of specialized data center operators is based on the growing acceptance of co-location and cloud computing; in conjunction with increasing concerns over the upgrade costs of existing obsolete data center facilities. While data center investment is forecast to grow further through the transformation of data center needs, sourcing of data center deals will be challenging for investors. With the confidential nature of this asset class, the majority of future deals are likely to be transacted off-market.

OUTLINE

Awakening Opportunities

for Data Center Investment

Specialized Data Center operators emerged and the acceptance of Data Housing and Co-location services grew. Firms no longer have to worry about the maintenance of facilities, equipment upgrade, or security. Further, with cloud computing, the physical burden of the server/hardware could be drastically reduced to a bare minimum.

The concept of the separation of owner and operator and the sale of data centers started becoming commonplace in the 2000s. Now, the speed at which demand for data centers grew was beyond expectation and in order to reduce tenant related risks, data center operators and data center owners began cooperating with professional real estate investors in the development of new data centers.

Facility Obsolescence means Opportunity

Companies that own their own data centers will look for ways to upgrade these functions in the most cost-effective way possible, which includes the option of cloud computing. Further, the desire to strengthen disaster and business continuity planning have created a strong impetus for firms to consider backing up their data offsite.

Data Centers Following the Same Path as Logistics

With e-commerce providing a push, the demand for Logistics facilities grew rapidly. The traditional warehouses, however, weren't able to absorb much of this new demand as the these did not meet the prerequisite conditions to attract tenants. Because of this, demand flowed into newly constructed modern logistics facilities. Similarly it is very difficult for data centers built in the 1990's or earlier to attract tenants. As such, as with Logistics, the possibility that new data center developments will absorb the demand is quite high.

Global Demand is on the Rise

Global demand for data centers continues to grow. In Asia Pacific, from 2016 to 2020, sales of Data Centers are expected to grow by 73%. This works out to a 15% growth rate on an annual basis (451 Research*).

* 451 Research (2016). Multi-Tenant Datacenter Global Providers 2016.

Terrorism Prevention Supports Data Center

To prevent terrorist threats, the United States has implemented an inflight laptop ban on flights originating from 10 airports in Middle Eastern and North African countries. This type of ban is likely to expand into the future. Those on business trips will therefore be more likely to rely upon cloud computing, acting to accelerate the market development.

Three Paths

for Data Center Investment

ISSUE

Obsolete Data Centers
(most were built in 1990s or earlier)

Growing Demand for Advanced Data Centers
(Tier 3 / Tier 4 facilities*)

DEMAND

Strategic Partnership with Real Estate Investors

Disposition by Corporate Owners

Internalization

OPPORTUNITY

Sale & Leaseback
(Seller Perspective)

Buy & Lease out
(mostly conversion)

Built-To-Suit (BTS) Development

Through the transformation of data center needs, three types of investment opportunities are emerging

PATH 1

Sale & Leaseback Opportunity

Data center owner/occupiers seek a strategic partnership with real estate investors. In Japan, the sale of a data center generally involves a sale and leaseback scenario whereby the buyer and seller reach an agreed upon lease period, typically 10 years. Sale and leaseback type opportunities are often data centers built in the 1990's or earlier and typically have older equipment. These type of facilities typically offer an attractive yield and cap rates can differ greatly between properties – ranging from 4.5% to 8.5% depending on the asset quality. Advanced data centers are also sometimes offloaded from the owner's balance sheet as part of their corporate strategy to refocus on major business lines.

TRANSACTION EXAMPLES

7.3% *Cap Rate*

Sale & Leaseback of Data Center Operator in Osaka,

6.4% *Cap Rate*

Sale & Leaseback of Corporate Data Center in Tokyo,

5.5% *Cap Rate*

Stabilized BTS Data Center in Chiba,

PATH 2

Buy & Lease out Opportunity – mostly conversion

While it is true that not all tenants require the most advanced specifications, those that do not are decreasing in number. As such, in sale and leaseback scenarios, it would be wise to assume that the leaseback tenant will only stay one term and careful consideration should be paid to the rental rate at which the facility can be re-rented. It would also be prudent to consider if the property has the potential for conversion as the existing building frame and low Power Usage Effectiveness (PUE) do not meet the high specification needs of modern data center. Cap rates considerably vary based on asset quality and feasibility of conversion. From a location standpoint, sale and leaseback properties are often located in fringe locations around a major metropolis – comparatively speaking, these locations are quite desirable for data centers as well as for office use. The more options you have, the more resilient your investment is.

** Tier definitions by Japan Data Center Council (JDCC)*

PATH 3

Built-to-Suit Opportunity (BTS)

From 2010, the required specifications for data centers drastically changed due to the onset of cloud computing and big data analysis requiring heavy computing power. BTS-type data centers started to gain prominence. Currently, new data centers need, among other requirements, 7-meter (m) or higher ceilings, a floor loading of greater than 2 tons per square meter, access to specialized high voltage electricity, and effective Power Usage Effectiveness (PUE) i.e. needs for Tier 3/4 data centers.*

The tenant contract for BTS data centers is typically 10 years and tenant vacation risk is quite low. The reason is that for large-scale data centers, equipment cost upwards of JPY10 billion, far exceeding the value of the shell housing the equipment, which simultaneously protects against the tenant terminating their contract. As far as tenant risks goes, BTS type data centers are better protected. Sales for BTS type Data Centers are not frequent but there are some examples. During the last five years the cap rates appear to be compressing but are still attractive with above 5% rates. Built-to-Suit is Build-to-Core.

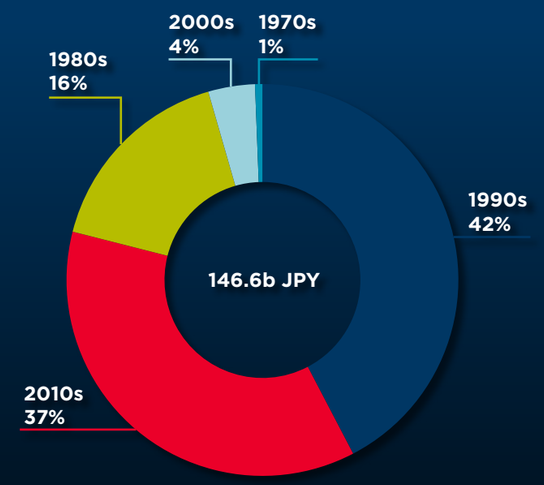
Off-Markets Nature of

Data Center Deals

Attractive data center deals are "Invisible"?

As of the end of 2016, the cumulative investment in data centers recognized in the market reached JPY146.6 billion. This figure underrepresents the actual transaction volume due to the confidential nature of the sector. As data centers are a more sensitive asset class, transactions are often marked as an office or industrial property when in fact the property is a data center. Data centers house confidential information: information vital to our livelihoods, as well as in some cases, classified government information. As such, if the location of the facilities becomes known, this can be a source of risk. In some cases, the data center could even become the target of terrorism and cyberattacks. In the case of BTS facilities, it is often necessary to keep the name of the tenant confidential during a large portion of the development process. Trust between counterparties and stakeholders is therefore a prerequisite for most projects. Hence, sourcing data center deals will be challenging, and future data center deals are expected to be done off-market via third party brokers.

AGE DISTRIBUTION OF JAPANESE DATA CENTER INVESTMENTS



* Based on Tier definitions of Japan Data Center Council (JDCC)

Infrastructure

is the Key

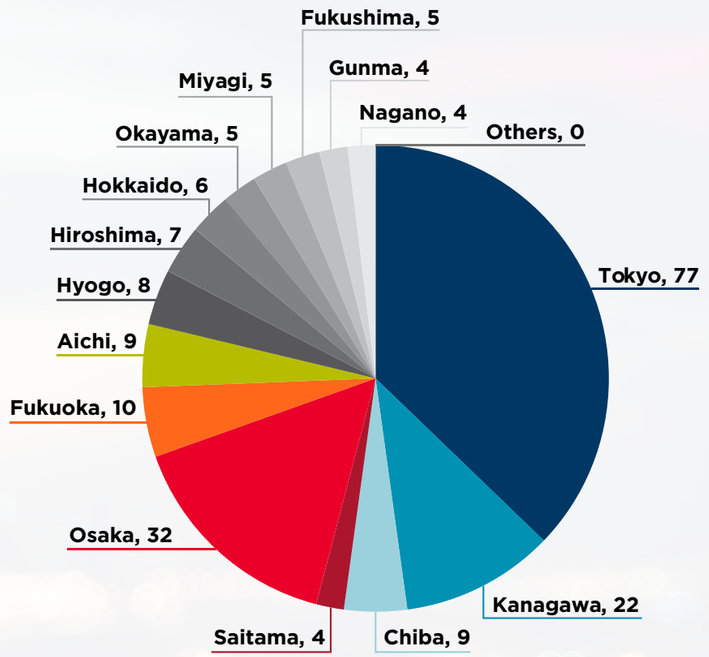
Where to find a good data center opportunity

Cushman & Wakefield's Data Center Risk Index proves the value proposition of Japan as a prominent data center location. Japan placed 4th out of the 10 Asian countries included in the index, proving its rich infrastructure for data centers.

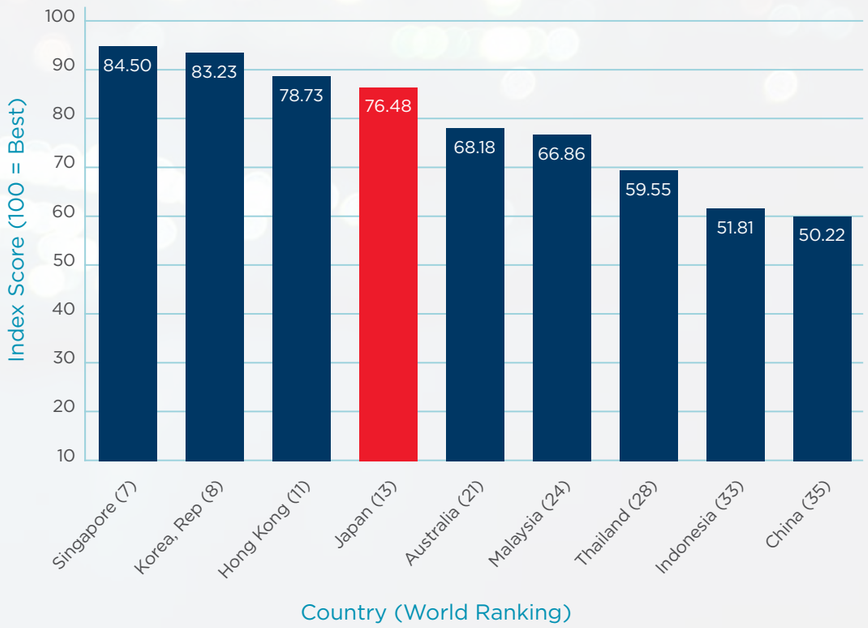
Infrastructure is a major condition necessary for the growth of data centers. Data centers rely on two key infrastructure components: electricity and network connectivity. Network connectivity is a major issue as "dark fiber", or unused fiber optics cables, may not be readily available; new infrastructure must be constructed, resulting in high costs and lost time. As internet exchanges are concentrated in Tokyo and other major hubs, potential sites for data centers are naturally constrained to these areas. In fact, 112 out of 248 data centers identified by the Japan Data Center Council are located in Tokyo Metropolitan Area (Tokyo, Kanagawa, Chiba, and Saitama), while 32 are located in Osaka.

Providing connectivity in areas where land prices are relatively cheap will give operators more options, avoid over-concentration risk in certain areas, and help accelerate the number of data centers.

DISTRIBUTION OF DATA CENTERS
(listed by the Japan Data Center Council)



ASIAN DATA CENTER LOCATION RANKING
(Cushman & Wakefield)



Decision Criteria

Check the following criteria
for your data center

INFRASTRUCTURE

Feasibility of Electricity Upgrade enables it to keep up with the current/future high voltage requirement.

Availability of Dark Fiber (unused fiber optics cable) increases user's flexibility, i.e. enhanced competition for your data center occupiers.

BUILDING FRAME DURABILITY

Floor Loading of the Building & Power Usage Effectiveness (PUE) ensure that the data center shell will be in demand.

PARTNERSHIP

Collaborative Approach to match interests between the data center occupier and the investor, rather than becoming an "exit" of the seller.

Investment Valuation to ensure optimal rent/price balance between a data center operator and an investor.

RISK MANAGEMENT

Protection from Natural Disaster & Terrorism hedges data center related risks.

Conversion Feasibility helps to guide an exit strategy, especially Sales & Leaseback opportunities as the building frame may not meet the current/future demand.

DO YOU KNOW:

- Risks involved in your data center investment?
- How to source data center investments?
- How to convert a disposed data center?
- Price/Rent valuation for your data center investment?

CUSHMAN & WAKEFIELD

Cushman & Wakefield is a leading service provider for data center investments in Japan, covering all aspects of data center investments from sourcing, valuation and construction management of data centers. For any queries please contact the below data center professionals:

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