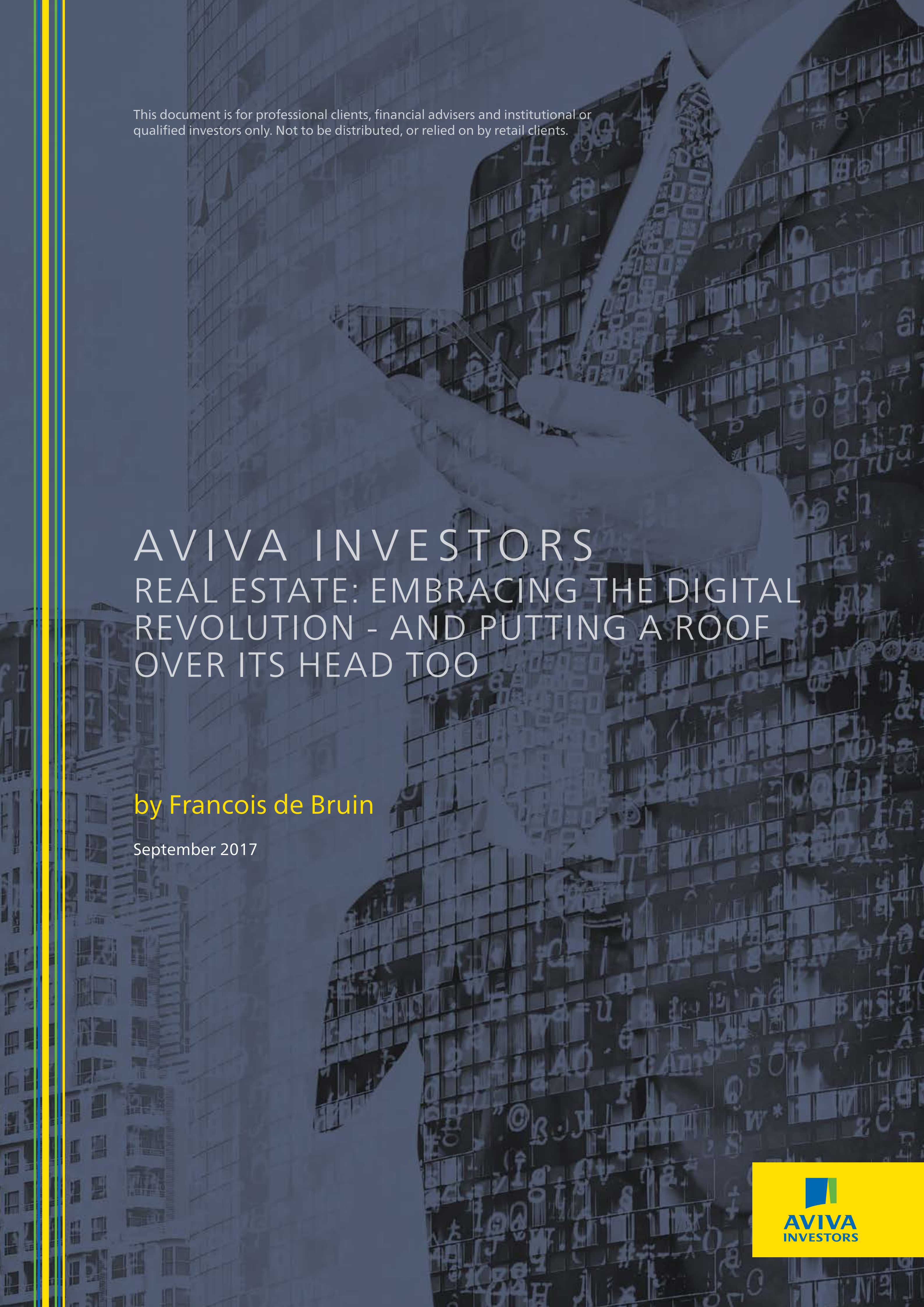

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AVIVA INVESTORS

REAL ESTATE: EMBRACING THE DIGITAL REVOLUTION - AND PUTTING A ROOF OVER ITS HEAD TOO

by Francois de Bruin

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FRANCOIS DE BRUIN CFA, CAIA
FUND MANAGER,
HEAD OF GLOBAL REITs

Main responsibilities

Francois leads our Global REIT team and is responsible for the management of global listed real estate mandates.

Qualifications

Francois holds a BCom in Investment Management and a BCom Hons in Financial Analysis from Stellenbosch University. He is a CFA charterholder and also holds the Chartered Alternative Investment Analyst (CAIA) designation.

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INTRODUCTION:

> The digital revolution has been the hallmark of our generation. There is a sense that the pace of technology-led change is particularly fast. We're more connected than ever, with information being created and changing hands at such velocity that it has earned its own label: Big Data. Traditional ways of doing things, from social interactions to how we do business, is evolving and there is a profound sense that technology is reshaping our lives.

Real estate, traditionally a slow moving industry, has risen to the challenge and embraced the digital world, not only with open arms, but with a roof over its head too.

- Data centres have gone from a peripheral alternative property type to being part of any organisation's core real estate consideration.
- Smartphones call for network providers to allocate billions in capex on their tower infrastructure in order to minimise latency and meet the ever-increasing high-quality experience their mobile customers demand.
- E-commerce means retailers spend more time driving efficiencies in their fulfilment centres than they do thinking about how to engage customers in their stores.
- Landlords have quickly come to appreciate that in many cases the real estate occupied on Google's landing page is as important, if not more, than the physical postcodes inhabited by their tenants.

The digital age is upon us and we're only at its genesis. The sheer scale and speed of change, however, means supply has struggled to meet demand and created a backdrop for favourable economics. As is to be expected, asset prices in real estate sectors that benefit from the digital-driven demand wave have risen dramatically, and valuations no longer reflect the rules of thumb which investors have historically deemed appropriate for such properties.

This paper aims to review the scale of the digital domain and its implications on a broad range of listed property types including data centres, towers, logistics and storage. It also challenges the pricing heuristics of yester-year and aims to provide perspective on the premium valuations ascribed to both direct and listed real estate prices.

THE STAGGERING NUMBERS BEHIND BIG DATA

There are roughly 7.5 billion people living on earth today. 4.9 billion of us have mobile phones, and 3.7 billion of us use the internet. Of those who use the internet, 2.7 billion are active social media users, over 36% of the total population. Social media users like to interact on the move, with over 2.5 billion active mobile social media users worldwide.

According to IHS, the Internet of Things market currently stands at 20 billion installed devices, outnumbering the total population by almost 3 to 1, and that number is forecast to reach 75 billion by just 2025. That equates to 10 devices operating independently without interference for every person on the planet.

While those numbers are impressive enough to draw a frown from even the most liberal theorists, they pale in comparison to idea of the amount of data being produced by the digital world. There are 1,024 megabytes in a gigabyte, and 1,024 gigabytes in a measure of computer storage called a terabyte.

According to Reduxio, the world generates 30 billion terabytes of data every second. If we were to attempt to store that second's worth of data, we would need 400,000 square feet of data centre space. To put that into perspective: that equates to twice the size of Los Angeles International Airport, or over 6 times London's 20 Fenchurch Street known as the Walkie Talkie. The numbers are truly staggering, and the infrastructure needed to support this quantum of activity is currently only a sapling in the digital amazon of big data.

DATA CENTRES: WHERE THE CLOUD TOUCHES EARTH

Cloud computing can simplistically be defined as the outsourcing of an organisation's IT department, allowing instantaneous access to a wide range of computing resources from computer networks and servers, to analytics and applications. According to a study conducted by Intel, cloud adoption has grown three-fold in the last year alone. Furthermore, within the next 2 years over 70% of enterprises will have adopted a multi-cloud strategy, up from less than 10% today.

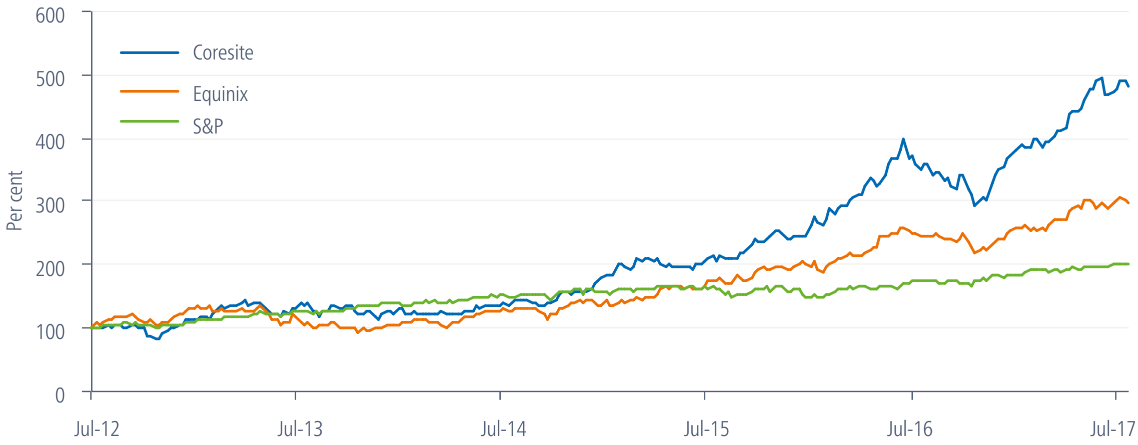
While The Cloud itself is a fluid, often obscure concept, the real estate that houses it is made of tangible bricks and mortar. Data centres are inconspicuous from the outside and resemble standard offices or industrial buildings. Yet through its highly specialised technology-laden core the property type provides an abundance of power and communications fibre that is ultimately the life-blood to the mission-critical IT infrastructure of the Internet and corporate world.

Data centres can either be bespoke single-tenant facilities or they can house multiple tenants in co-location sites. Co-location network-dense properties in particular have high barriers to entry. Not only are these highly specialised facilities built in population dense locations, they are home to thousands of tenants and act as the market place for the flow of information. As servers become embedded in an eco-system it becomes very difficult to leave. Performance and security are of paramount importance and downtime and network latency is held as a cardinal sin.

High demand, low supply and extraordinary performance demands means data centre real estate is an expensive commodity. According to Green Street Advisors, the implied price per square foot for network-dense REIT Coresite Realty is $2,130 per square foot. Christie's 2016 The Price of Luxury: a Global Comparison of Square Foot Prices report suggests that only luxury homes in Monaco and Hong Kong are more expensive.

REITs that own network-dense data centres have been in high demand, and total returns have been robust for early adopters. Leading network-dense data centre REITs Coresite and Equinix have outperformed the S&P 500 by 22.3% and 8.4% per annum respectively over the last 5 years.

Figure 1: Coresite and Equinix vs S&P 500, Total Return



Source: Bloomberg 11 August 2017. Past performance is not a guide to the future

GAME OF TOWERS: THE KING IS DEAD, LONG LIVE THE KING

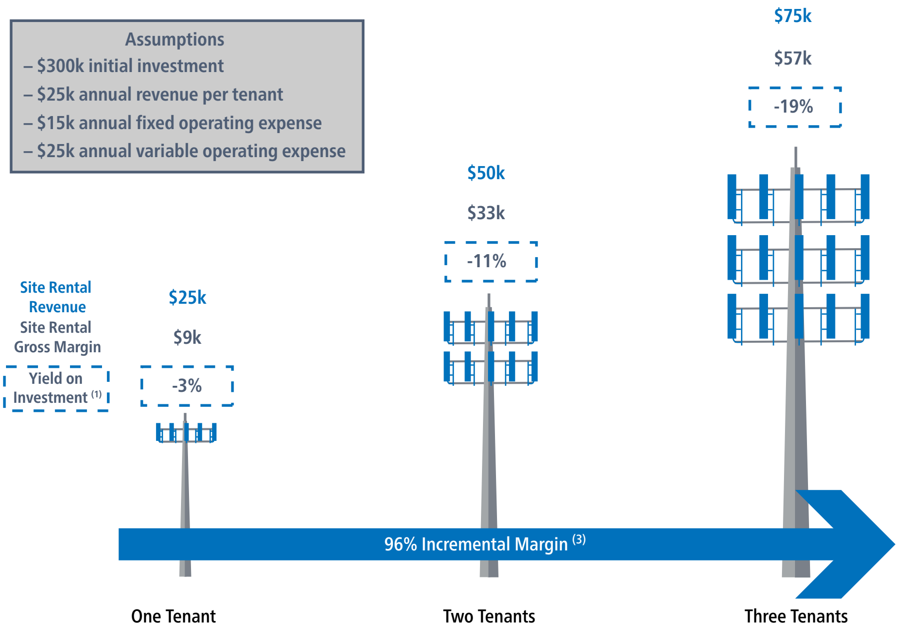
For decades mall REIT owner Simon Property Group reigned supreme as the leading global REIT with the largest portfolio and market capitalisation, boasting a portfolio of over $115 billion and growing to a market cap of $51 billion today. However, 2017 saw the coronation of a new REIT monarchy. Thanks to the rapid increase in wireless data consumption, American Tower has amassed over 140,000 towers across five continents and its market capitalisation now stands at almost $60 billion.

The advent of the smartphone ushered in an era of unprecedented growth for the telecommunications industry and consumers demand as much computing power on-the-go as they do in front of their desktops.

As consumer habits have evolved, the reliance on denser networks for instant data consumption has increased exponentially. With the immanent arrival of 5G and even driverless cars, these towers are likely to play an even more pronounced role.

Tower REITs benefit from economies of scale, not only from operating vast numbers of assets, but also in the incremental revenue received as existing towers add additional networks. Crown Castle, the world’s 2nd largest tower REIT, has demonstrated that while an initial tower with a single tenant only delivers a modest 3% yield on investment, the addition of a second network delivers an 11% return and a 3rd as much as 19% yield on cost.

Figure 2: Illustrative Tower Economics[1]


Assumptions
– $300k initial investment
– $25k annual revenue per tenant
– $15k annual fixed operating expense
– $25k annual variable operating expense
Site Rental Revenue
Site Rental Gross Margin
Yield on Investment (1)
$25k
$9k
-3%
$50k
$33k
-11%
$75k
$57k
-19%
96% Incremental Margin (3)
One Tenant
Two Tenants
Three Tenants

Source: Crown Castle International, March 2016

[1] For illustrative purposes only.
[2] Calculated as annual site rental gross margin as a percentage of total invested capital.
[3] Calculated as incremental gross margin divided by incremental revenue ($24/$25k.

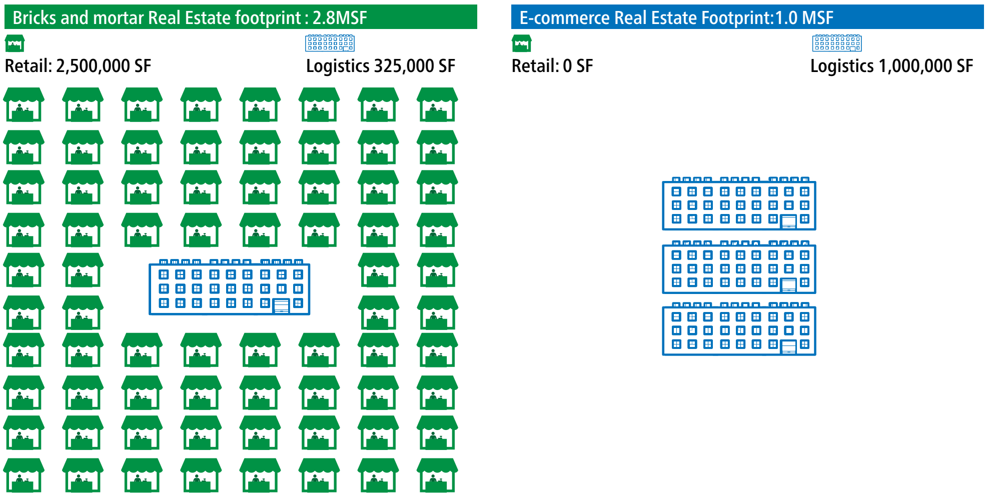
LOGISTICS DEMAND AT THE CLICK OF A BUTTON

Conducting business over the internet has grown in leaps and bounds over the last decade. In the United States, e-commerce accounted for 11.7% of total retail sales last year, up 15.6% over 2015 according to the US Department of Commerce. Total online sales reached $395 billion and accounted for 42% of the nation's overall retail sales growth. This demand creates increased demand for warehouse and logistics facilities.

According to research conducted by Prologis, a leading global logistics real estate owner and operator, €1 billion of online sales generates approximately 77,000 square meters of new logistics demand. With e-commerce expected to grow to over €200 billion by 2022, an additional 15 million square meters of new space will be needed in Europe alone. That's the equivalent of 2,100 football pitches of incremental demand. This demand is estimated to fuel a further 200,000 in new jobs needed to staff the fulfilment centres over the next five years.

Compared to traditional brick-and-mortar retail, while e-commerce users require less total space they require three times the logistics space. It's estimated that $1 billion of sales needs roughly 2.5 million square feet of space, and 300-350 thousand square feet of logistics space to support the operation. However, had the entire transaction been conducted online, the retailer would need approximately 1 million square feet of logistics space. Therefore the strong online sales growth has major implications for the demand for industrial facilities.

Figure 3: How Much Real Estate Does a $1 Billion Retailer Need?


Bricks and mortar Real Estate footprint : 2.8MSF
Retail: 2,500,000 SF
Logistics 325,000 SF
E-commerce Real Estate Footprint:1.0 MSF
Retail: 0 SF
Logistics 1,000,000 SF

Source: Prologis Research, 9 October 2015

STORAGE: FRAGMENTED MARKETS ARE LUCRATIVE FOR THOSE WITH THE TOOLS TO SCALE AGGRESSIVELY

While technology has created outsized demand for certain property types such as data centres and logistics facilities, less obvious benefactors have also emerged from the digital age. Self-storage REITs for example have embraced technology as much as any tech start-up.

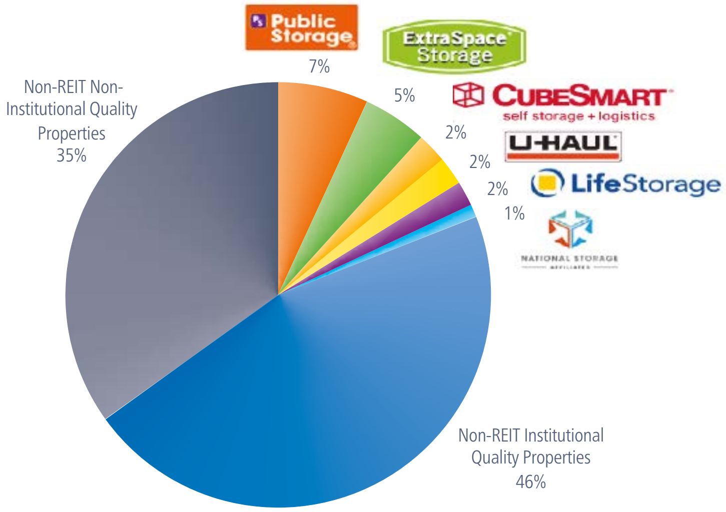
Self-storage is a highly fragmented real estate sector by ownership, and REITs have used technology to gain a competitive advantage and scale quickly. According to the UK's leading self-storage REIT, Big Yellow, 87% of their prospects enquire for space via digital platforms. Through their scale REITs are able to bid much more competitively for real estate on search engines such as Google, and pay-per-click and social media engagement has lead to large occupancy growth. A quick search for "storage" will turn to a page where REITs occupy the best on-screen real estate. In the virtual world, therefore, the old adage still rings true: location, location, location.

Having embraced the benefits of online marketing many years ago, storage is a familiar product in the United States. There are roughly 50,000 facilities across the country which is an estimated 8 square feet per capita. Despite broad take-up of the product, REITs still only control 16% of the total market share.

In other international markets, however, there is still a large degree of education that needs to take place. The internet has given storage operators the ability to target clients with surprising precision and created a meaningfully more effective introduction to self-storage.

Storage REITs are also able to run their businesses better as a result of computing advancements, with algorithmic revenue management systems allowing for more competitive pricing compared to local operators who still rely on "gut feel" to weigh supply and demand forces.

Figure 4: Market share



Source: ExtraSpace Storage, 30 June 2016

ARE THE PREMIUM VALUATIONS JUSTIFIED?

These strong thematic demand forces have understandably driven pricing discrepancies between property sectors. In the United States in particular, sectors that benefit most from digital-driven demand trade at large premiums to Net Asset Values (NAV), while traditional sectors such as offices, apartments and retail properties trade at meaningful discounts.

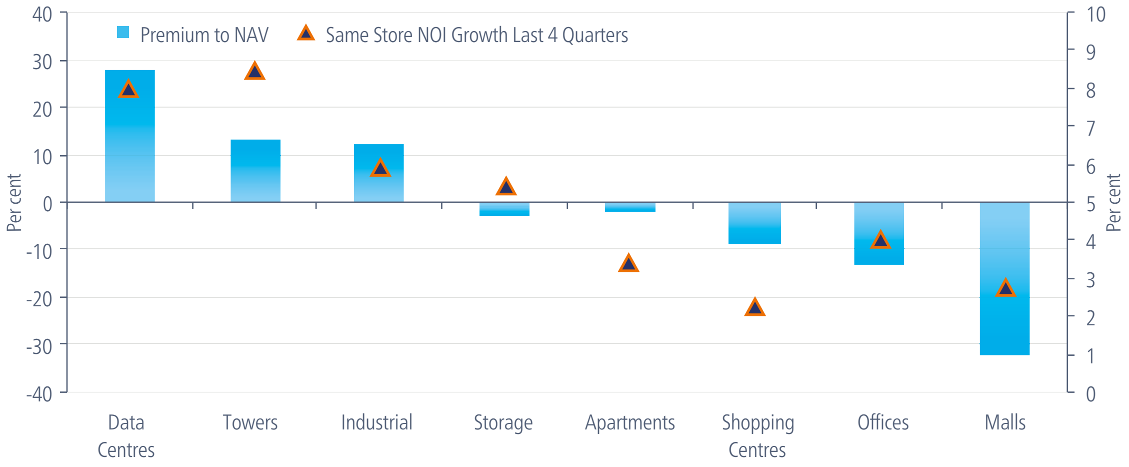
Investors have a chequered history when it comes to investing in opportunities that benefit from apparent thematic tailwinds. At the turn of the century during the tech bubble large premiums were ascribed to companies based on soft metrics such as "eye-balls" and "hits" with the promise of future profits but with rather questionable basis in economics. It is therefore prudent for investors to consider premiums to valuations in light of the cash flows generated, regardless of the asset class.

For real estate investors, a review of the growth in Net Operating Income (NOI), the unlevered cash flows generated by a REIT, against premiums to NAV provide valuable insight into the matter. Over the last 12 months REIT sectors that demand premium valuations have justified the bullish view by delivering outsized NOI growth.

Despite the premium valuations, capitalisation rates (the NOI dived by sale price) for these sectors remain higher than traditional sectors. With higher initial yields and considerably higher growth rates, the outlook for total returns suggest these premiums are appropriate and are likely to persist for the foreseeable future.

For investors looking to align their long-term capital allocations to the digital age, but appropriately demand cash flow generation as the basis for valuing investment opportunities, real estate may prove a useful home for those who know where to look.

Figure 5: Premium discount to NAV



Source: 14 August 2017, Greenstreet Advisors, Aviva Investors

NOTES

Important Information

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