

## Data Centers: The Nucleus of the Digital Universe | December 2013

November was a tough month for REITs as the MSCI US REIT Index (RMS) produced a total return of -5.2%, giving back all of the gains from October. In comparison, the S&P 500 had a total return of +3.1%. Year to date, the RMS is up 2.2%, while the S&P 500 is up 29.1%.

### The Superior Vehicle for Commercial Real Estate Investing

The REIT model has come a long way in 53 years. For 30 years, it was an also-ran, second rate option for ownership of commercial real estate. Quality assets in great locations with experienced management teams were almost exclusively held on the private market. A string of events including the Tax Reform Act of 1986 and the Savings and Loan Crisis in 1989 forced quality companies in need of capital to come public. Most property types quickly became investable by 1993 for everyone, fulfilling the promise of the REIT legislation signed by President Eisenhower in 1960.

In 2004, Digital Realty Trust (NYSE: DLR) made its debut as the first data center REIT. Cell tower companies joined the party in 2012 with American Tower's (NYSE: AMT) conversion. As with any good thing, the onlookers tried to capitalize on the higher valuations they could be potentially awarded in the REIT structure. On average, stocks that announced intentions to convert to a REIT outperformed the REIT sector by 6% the day after the announcement. Billboards, landfills, car dealerships, and document storage are just a few of the sectors that have applied for private letter rulings (PLR's) from the IRS on the ability to convert to a REIT.

### REIT Conversion Party on Pause

In June, Iron Mountain (NYSE: IRM) announced that the IRS had put a halt on all PLR's until they could decide upon a more definitive rule for what constitutes real estate. Subsequently, all potential REIT candidates and even the data center REITs underperformed significantly on the potential for more strict real estate definitions that could block conversions and potentially revoke REIT status from already-approved REITs.

We applaud the IRS in their quest to establish a clear rule that can provide a path for companies to convert and decrease uncertainty for those who are considering it as an option. The indices that serve as benchmarks for the REITs should also recognize their ability to adapt. The MSCI REIT Index has yet to allow AMT into its membership as a result of their more strict definition of real estate. Going forward, the REIT structure needs to continue to prove that it will be the superior vehicle for investing in commercial real estate, and can adapt to changes that are bound to occur over the next 50 years.

We have been investors in the data center sector since 2010, and have enjoyed watching the sector grow to 5 companies with a combined market value of \$11.4 billion, or approximately 2% of all public equity REITs. As shown in Figure 1, all data center REITs were not created equal, however. Wholesale leases are usually greater than 250kw, or 0.25 MW. In general, leases at the retail level will be more expensive on a per sqft basis than wholesale, and for a shorter term. By using the average remaining

Figure 1: Data Center REIT Comparison

Company	Ticker	Price	Mkt Cap (millions)	Div Yield	YTD Total Return*	2014 FFO Multiple	2014 AFFO Multiple	Property Type	Avg. Remaining Lease Term (Yrs)**
Digital Realty Trust	DLR	\$47.24	\$6,208	6.6%	-28.1%	9.3x	11.9x	Wholesale	5.7
Coresite	COR	\$32.36	\$1,514	3.3%	19.9%	15.1x	17.0x	Colocation	2.6
Dupont Fabros	DFT	\$23.47	\$1,892	4.3%	0.6%	10.4x	10.3x	Wholesale	6.3
CyrusOne	CONE	\$20.43	\$1,322	3.1%	10.1%	12.1x	16.2x	Colocation	2.5
QTS Realty	QTS	\$20.82	\$766	4.6%	-0.9%	10.9x	14.1x	Colocation	2.6

Source: Chilton Capital, Company Reports, Keybanc. As of November 30, 2013. \*YTD total return from January 18 for CONE and October 9 for QTS.

\*\*As of September 30, 2013. Assumed 10 years for leases expiring after 2023 for DLR, COR, CONE, DFT. Assume 10 years for leases expiring after 2018 for QTS

term on their leases, we can classify each data center REIT as focused on either wholesale or colocation space. DFT and DLR's longer lease terms indicate a focus on wholesale, while the remaining data center REITs are more concentrated in the colocation segment.

### The Data Center REITs

Digital Realty (NYSE: DLR) was the first data center REIT to come public and is the biggest with a market capitalization larger than that of the other four combined. The portfolio is comprised of over 21 million square feet in 188 buildings located throughout North America, Europe, and Asia. Recent missteps by management in financial reporting coupled with more competition has resulted in the stock selling at one of the lowest multiples on FFO of any REIT, and, for the first time in years, it is trading at a discount to net asset value (NAV). Management has recognized its errors and is underway on multiple enhancements to its business model and transparency with investors.

DuPont Fabros (NYSE: DFT), owns a \$3 billion portfolio of data centers that specialize in the wholesale market used by major internet and enterprise companies including Microsoft (NASDAQ: MSFT), Yahoo! (NASDAQ: YHOO), and Facebook (NASDAQ: FB). DFT has 2.5 million square feet (218 megawatts of critical load) spread over five locations in the US, and the operating portfolio was 94% leased as of September 30, 2013.

Coresite (NYSE: COR) operates 14 data centers (2 million square feet including development properties) in 9 major cities in the US. COR's properties are typically 'network-dense', meaning each property has hundreds of customers, including leading carriers and mobile operators, content and cloud providers, media and entertainment companies, and global enterprise companies that have performance-sensitive applications. In contrast to wholesale space, 'retail colocation' space is mostly sold at 'network-dense' data centers. The fundamental outlook for network dense is particularly strong as IT departments in businesses everywhere acknowledge the changing role of the data center to that of a strategic component of future success.

CyrusOne (NASDAQ: CONE), similar in size to COR at a market capitalization of \$1.4 billion, came public in January 2013. Its 1.8 million

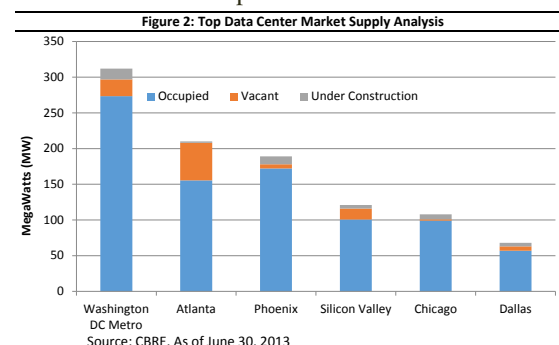
square foot footprint is primarily situated in the major cities in Texas, Cincinnati, and, to a lesser extent, London and Singapore. As of September 30, roughly 34% of its annualized rent is derived from energy companies due to a boom in seismic related research and development. Cincinnati Bell (NYSE: CBB) maintains a 69% stake after the IPO, which we expect to be sold over the next 3-5 years. Generally, a higher float is a welcome event by institutional REIT investors.

QTS Realty Trust (NYSE: QTS), came public in October 2013 and is the smallest of the five by market capitalization. It owns data centers in 10 locations with a heavy emphasis on the Atlanta market, which accounts for about 70% of the raised floor portfolio of 715,000 square feet. QTS is somewhat unique relative to the other data center REITs since it provides cloud and managed services in addition to wholesale and retail data center space. The services business, which accounts for about 9% of revenues, is very labor intensive as customer contracts are typically less than three years and it must staff accordingly to meet the needs of less IT-sophisticated customers.

### Supply Risk Exaggerated

Whether or not data center REITs are real estate according to someone's definition, the sector is still driven by the same fundamental supply and demand dynamics as traditional real estate sectors. New construction of data center space at a faster pace than demand can put downward pressure on rents, and, conversely, rents will rise when demand exceeds supply.

Figure 2 shows the total wholesale megawatts (MW) available for lease and under construction in some of the largest domestic data center markets. Supply is measured in MW as it is the typical unit of measure for leases. 1 MW is equal to 1,000 kilowatts (KW), and can power about 1,000 homes. Some data centers provide 30 MW or more in power to their tenants.



Data center sector short sellers point to over-supply as potentially putting pressure on future earnings growth, but the new construction numbers are small when compared to the total current inventory. Prior to 2013, data center construction had been anemic due to the recession, which has dramatically increased occupancy, or utilization, across data center markets. The new supply under construction today has been fairly disciplined, inasmuch as up to 50% of the space has been pre-leased. Furthermore, the new supply is mostly undifferentiated wholesale space, which is only part of the holdings of the data center REITs as outlined in Figure 1.

We are particularly excited about the *lack of* new supply in the retail colocation segment, which is usually filled with leases lower than 250kw and includes data centers that are filled with thousands of cross-connections between tenants. In most cases, these properties serve as major hubs for internet traffic and are therefore able to charge premium rents due to the attractive ecosystem of tenants. To interconnect to another tenant via a ‘cross-connect’, a tenant must locate its servers close enough for a physical hardware to connect the two tenants’ equipment. Therefore, they have little choice in where to lease space if they want to have the fastest connection with the internet service provider (ISP), cloud provider, or content distributor. Data center owners are able to charge for the cross connection and benefit from high tenant retention rates. COR’s concentration in this segment is evident in that 83% of revenue comes from tenants with 5 or more interconnections. Furthermore, COR’s Entertainment and Gaming ecosystem in Los Angeles uses 2,076 cross connections as of September 30, 2013.

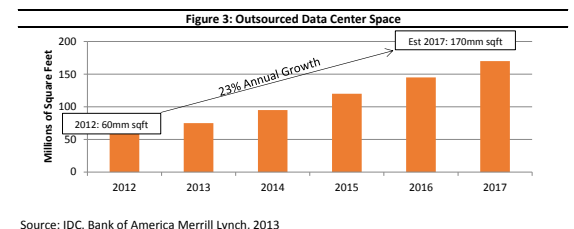
#### Demand Drivers Charging Ahead

In the November 2013 Chilton REIT Outlook focusing on cell towers, we highlighted increasing demand for data on mobile devices as a key industry trend. While the cell tower is the mode of transportation to the mobile device, the data center is the nucleus which stores and sometimes creates the data which can be routed to mobile devices, as well as computers and televisions. In addition to data storage, data centers serve as hardwired highways that transport data across the world from telecom carriers to internet service providers. ‘Cloud’ companies use data centers to distribute software to end users. More recently, companies are using the cloud to execute processes, called

‘cloud computing’, so that it does not have to be done on your local PC, tablet, or mobile phone. Finally, financial transactions are a driver of demand for servers in a data center. Going forward, outsourcing and cloud will be the biggest drivers of demand growth in data centers owned by REITs.

#### Cheaper, Better, Faster

Outsourcing technology is nothing new for companies. With the advent of the internet age, technology has become increasingly important to be competitive. A superior experience for customers, an efficient work environment for employees, and a compliant disaster recovery plan are essential for blue chip companies today. Hiring the proper team and investing in the infrastructure are expensive and prone to cost overruns if it is not within the company’s set of core competencies. The decision to outsource data center space can save companies up to 75% versus trying to do it on their own. However, only 8% of data center space worldwide is outsourced. We view the opportunity for further outsourcing to be huge across almost all industries (Figure 3).

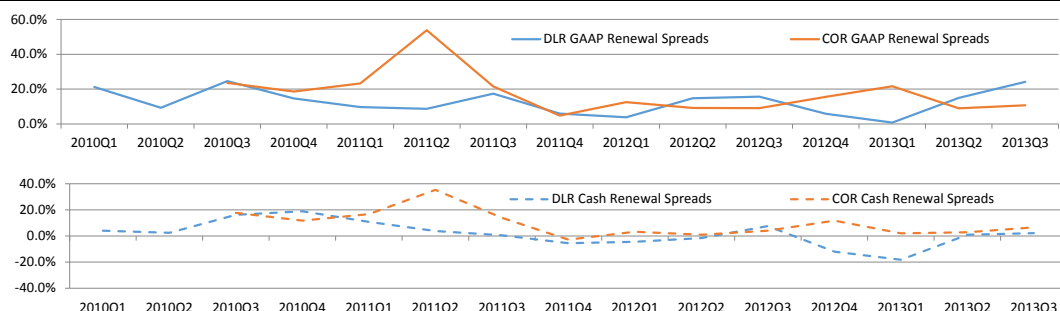


#### To The Cloud!

Another significant driver of demand will be the growth in usage of the cloud. Cloud data storage via personal content lockers has helped to alleviate storage on local hard drives, which creates more room for files that need to be accessed frequently. Dropbox, Box.net, iCloud, Google Drive, and Microsoft SkyDrive are examples of tenants that provide personal storage lockers. A report by Cisco forecasts that data stored on personal content lockers will increase from 1.7 exabytes (1 exabyte = 1 million gigabytes) in 2012 to 20 exabytes in 2017, a compound annual growth rate (CAGR) of 63%.

In addition to storage, the ability to ‘compute’ in the cloud is also a growing business for cloud tenants. Cisco estimates that 63% of all workloads will be done in the cloud by 2017, up from 39% in 2012. Importantly, the data centers REITs will be beneficiaries of both outsourcing by individual companies and growth

Figure 4: DLR and COR Lease Renewal Spreads



Source: Company Reports, Chilton Capital

in space by cloud providers.

### Rent Trajectory

Like other REIT sectors that are decelerating from very good to merely ‘good’, data centers have been punished recently for a few quarters of below average growth. Market rents for wholesale space have been declining, but industry experts believe that they have bottomed. The decision to outsource or take more data center space is a ‘delayable’ decision, so lease signings, and therefore, commencements can be lumpy by nature. Importantly, the rates at which leases expiring for DLR are similar to what leases are today on a cash basis, and 25% higher when comparing the average annual rent over the life of the lease (GAAP). COR has been consistently able to produce positive cash leasing spreads, but again has experienced deceleration (Figure 4). The ‘value-add’ in each of the data center stories is the 12%+ return on cost achievable on development and the ability to lease up vacant space.

### Chilton Overweight to Data Centers

We are selectively positive on data center REITs given attractive valuations, strong rental growth in selective markets, and profitable development pipelines. Recent underperformance has been driven by fears of declining wholesale market rents, concerns on the long term capital expenditures to maintain data centers, and a few company specific management missteps. We believe the downside risks to the sector have been minimized thanks to discounted valuations, and we feel comfortable with the long term health of the sector.

*Indexes are unmanaged and have no fees or expenses. An investment cannot be made directly in an index. The funds consist of securities which vary significantly from those in the benchmark indexes listed above and performance calculation methods may not be entirely comparable. Accordingly, comparing results shown to those of such indexes may be of limited use.*

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**RMS: 1308 (11.30.2013) vs. 1280 (12.31.2012) vs. 1087 (12.31.2011) vs. 1000 (12.31.2010) vs. 792 (12.29.2009) vs. 933 (9.30.2008) and 1330 (2.7.2007)**

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