

Data Center Sector

June 2, 2016

DJIA: 17,839 | RMZ: 1,159 | 10-Year T-Note: 1.80%

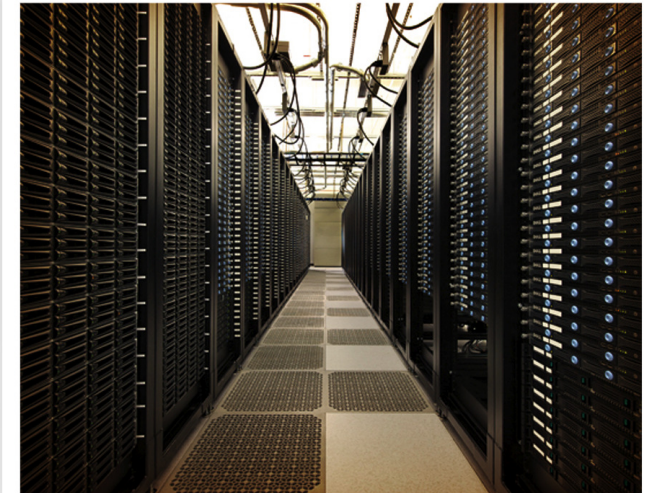


Green Street Advisors

Landlords Enjoying the Cloud Land Grab

Overview

- Data center landlords are enjoying healthy demand growth
- Demand from public clouds has been particularly robust
- Supply growth appears to be manageable
- Fundamentals are slightly in favor of landlords
- Data center REITs trade at NAV premiums and should grow
- External growth is focused on development
- Balance sheets are in decent shape
- NAV and earnings estimates have been updated for 1Q16 results
- Estimates are significantly higher due to increased growth forecasts



Authors

Lukas Hartwich, CFA
David Guarino

Important disclosure on page 9

660 Newport Center Drive, Suite 800, Newport Beach, CA 92660, USA

+1 949 640 8780

© 2016, Green Street Advisors, LLC.

Executive Summary

Operating Fundamentals

Favors Landlords

- Demand growth appears to be picking up thanks to the growth of public cloud providers
- Overall supply growth appears to be in check
- Network-dense data center fundamentals continue to be healthier than enterprise
- Rent growth is slightly higher than the historical average

Cap. Alloc. / Bal. Sheet

Doing the Right Thing

- NAV premiums give data center REITs a "green light" to grow
- All three data center REITs in our coverage universe are avid developers
- Acquisitions are tough to come by, but DLR is buying a portfolio from EQIX (4% expansion of assets)
- Balance sheets are in good shape; DLR is smartly deleveraging with fwd. equity sale to fund EQIX deal

NAV / Earnings

Playing Catch Up

- NAVs and earnings models have been updated for 1Q16 results, and are significantly higher
- Changes driven by better-than-expected results and higher growth expectations

Recommendations

No Changes

- Digital Realty isn't getting enough credit for its valuable, networkdense portfolio. Digital's implied cap rate is 30 bps *higher* than CoreSite, when it has historically traded at a cap rate 50 bps *lower*.

NAV Change Summary							
Ticker	Cap Rate		Asset Value	Net	NAV / Sh		Rec
	New	Change	% Change	Leverage	New	% Change	
COR	7.3%	-	16%	20%	\$57.75	16%	SELL
DFT	7.8%	-	9%	31%	\$38.25	15%	HOLD
DLR	6.9%	-	5%	43%	\$78.50	8%	BUY
Average	7.3%		10%	31%		13%	

Data Center Real Estate 101

Industry Overview

Data centers are highly specialized buildings that house the mission-critical IT infrastructure that powers the Internet and corporate world. From the outside, many data centers resemble a typical office / industrial building. On the inside, data centers offer access to abundant power and communication fiber, and have redundant infrastructure that keeps servers humming even if the power goes out. The robust build-outs in data centers can push development costs over \$1,200 per sq. ft.

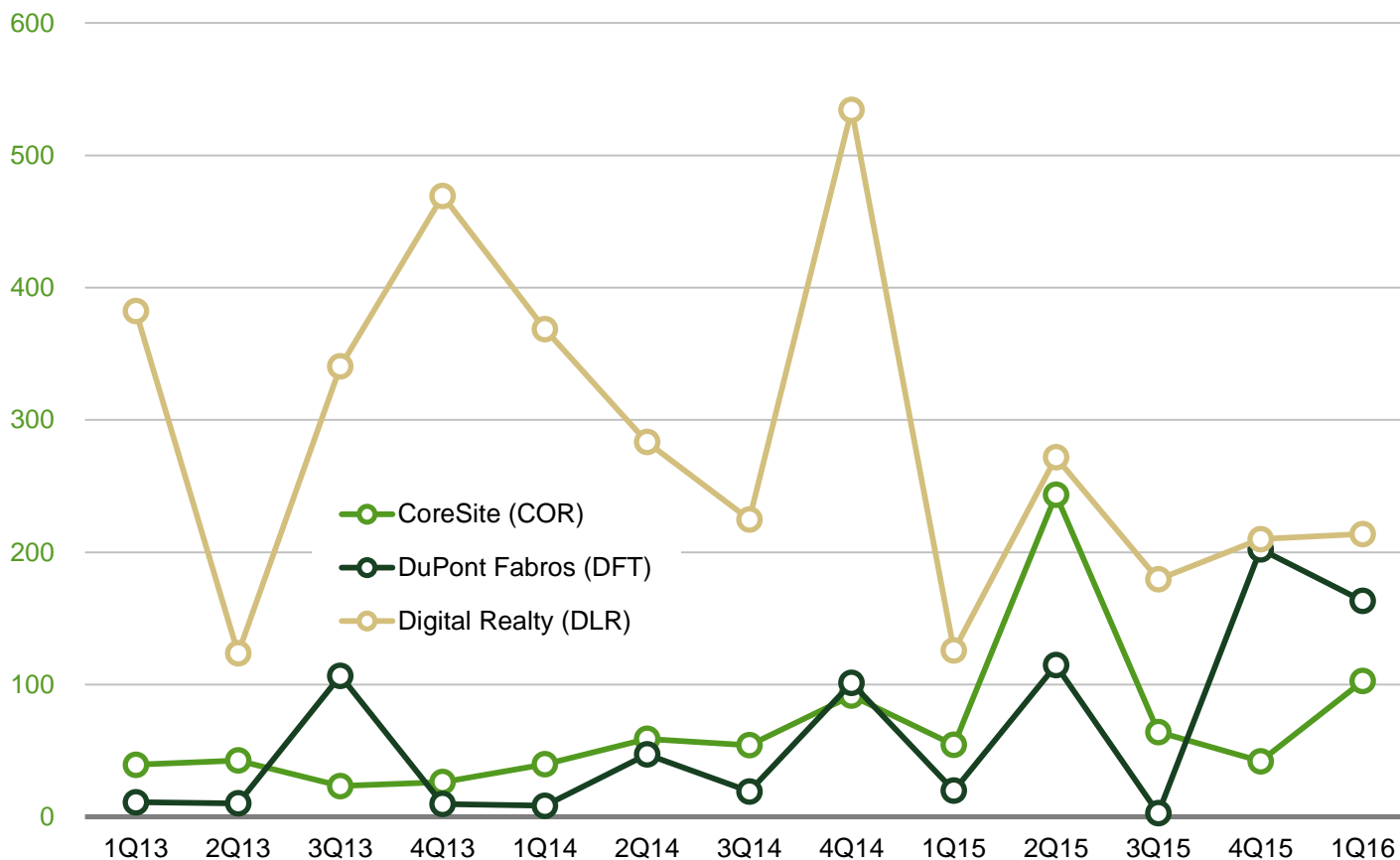
Key Terms

- **Megawatt (MW):** A measure of power (1 MW = 1 million watts). Data center leases are typically structured by the MW rather than sq. ft. Large-scale data center power needs can amount to 40MW, as much energy as 40,000 homes.
- **Colocation:** The business of catering to smaller data center tenants. Leases tend to be shorter (<5 years), and are usually for less than half a megawatt. Tenants lease individual racks or cabinets in a multi-tenant suite, rather than an entire suite.
- **Wholesale:** The business of catering to larger data center tenants. Leases tend to be longer (5-10 years), and are usually greater than half a megawatt. Tenants lease entire suites or buildings as opposed to racks or cabinets in a multi-tenant suite.
- **Network-Dense Data Center:** Data centers that act as key hubs for the Internet and connectivity. Network-dense data centers are rare, hard-to-replicate, and exhibit strong pricing power. They are the data center equivalent of high-productivity malls.
- **Enterprise Data Center:** Data centers that serve the needs of corporate IT departments and large-scale Internet enterprises. These facilities are more exposed to competition than "network-dense" data centers.
- **Powered Base, or Powered Shell:** A data center property, or space within a property, that has not been substantially improved beyond its shell state. The tenant, rather than the landlord, is responsible for building out the space. From the landlord's perspective, powered base building development costs run a few hundred dollars per sq. ft., compared to \$1,200+ per sq. ft. for a fully built-out data center. Powered base space/buildings are commonly leased on a triple-net basis.
- **Turn-Key:** Data center space that is highly built out and ready for use by tenants. Improvements to the building's shell, such as costly electrical and cooling infrastructure, can push total development costs over \$1,200 per sq. ft. Turn-key space is typically leased on a gross basis (DuPont is a notable exception), with tenants paying electricity costs.
- **Interconnection:** The act of multiple tenants at network-dense data centers that serve as key Internet hubs "connecting" to exchange Internet traffic. The operator of these facilities (e.g., Telx, CoreSite) is typically able to charge recurring interconnection fees for this activity.

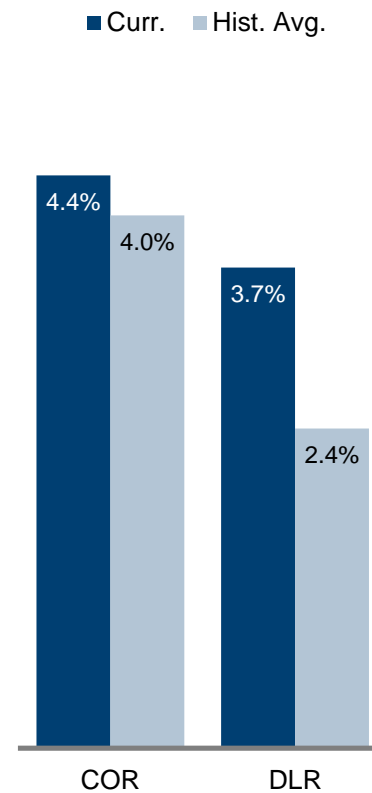
Healthy Demand Growth

REITs Benefitting from Cloud Growth: Leasing activity can be volatile in the data center business, but recent trends have been robust thanks largely to the aggressive expansion of cloud providers (e.g., Amazon Web Services, Microsoft Azure). Rent growth is trending slightly above the historical average.

Leasing Activity - New Signed Leases (Sq. Ft. in 000s)



Cash Rent Growth on Renewal Leases*



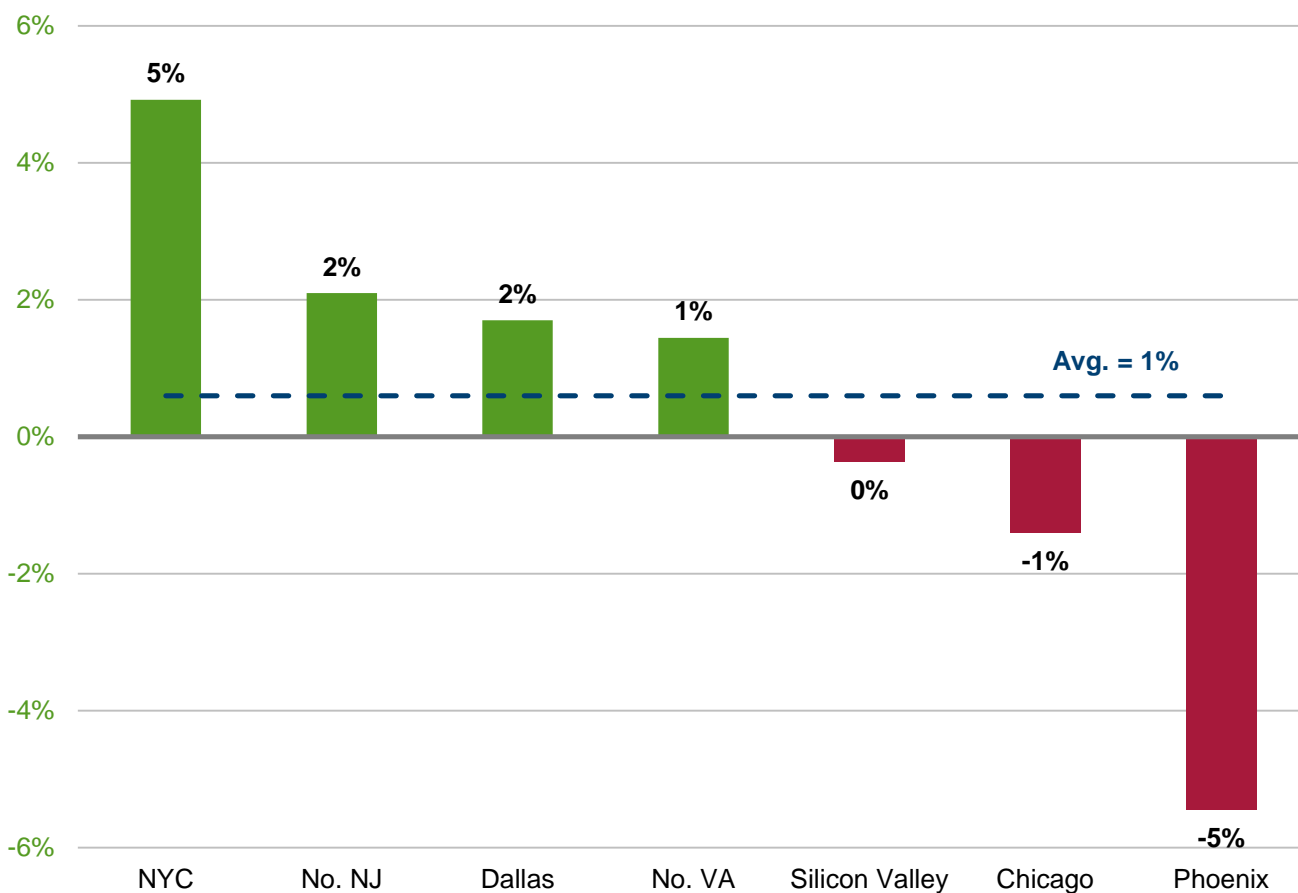
Sources: Company disclosure, Green Street Advisors.

* Current is trailing-four-quarter average.

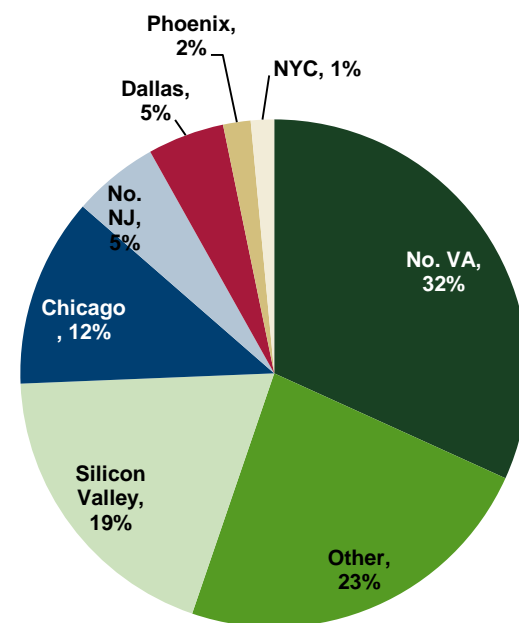
Supply Growth In Check

Just-In-Time Inventory: Data center supply growth is difficult to measure, but most datapoints suggest the overall industry is roughly in equilibrium. New York and Northern Virginia continue to be tighter markets, while Phoenix developers may be getting a bit ahead of themselves.

Market-Level Demand vs. New Supply *



Top REIT Markets



Sources: JLL, company disclosure, Green Street Advisors.

* Calculated as: ('15 Net Absorption - Space under Construction) / Existing Inventory.

Green Street Advisors' Disclosure Statement

Issuers of this Report: US and EEA: This report has been prepared by analysts working for Green Street Advisors (GSA (US)) and/or Green Street Advisors (U.K.) Limited (GSA (UK)). GSA (US) is the parent company of GSA (UK). **This report is issued in the USA by GSA (US). GSA (UK) accepts no responsibility for this report to the extent that it is relied upon by persons based in the USA.** GSA (US) is regulated by the United States Securities and Exchange Commission, and its headquarters is located at 660 Newport Center Drive, Suite 800, Newport Beach, CA 92660.

This report is issued in the European Economic Area (EEA) by GSA (UK). GSA (US) accepts no responsibility for this report to the extent that it is relied upon by persons based in the EEA. GSA (UK) is registered in England, (Company number. 6471304), and its registered office is 20 Balderton Street, 5th Floor, London, W1K 6TL. GSA (UK) is authorized and regulated by the Financial Conduct Authority in the United Kingdom and is entered on the FCA's register (no. 482269J).

References to "Green Street" in Disclosures in this section and in the Other Important Information section apply to:

- GSA (US) to the extent that this report has been disseminated in the USA; or
- GSA (UK) to the extent that this report has been disseminated in the EEA.

Green Street Advisors US is exempt from the requirement to hold an Australian financial services license under the Act in respect of the financial services; and is regulated by the SEC under US laws, which differ from Australian laws.

Green Street Advisors UK Ltd. is exempt from the requirement to hold an Australian financial services license under the Act in respect of the financial services; and is regulated by the FCA under UK laws, which differ from Australian laws.

Green Street reserves the right to update the disclosures and policies set out in this document at any time. We encourage a careful comparison of these disclosures and policies with those of other research providers, and welcome the opportunity to discuss them.

Affiliate Disclosures: Green Street does not directly engage in investment banking, underwriting or advisory work with any of the companies in our coverage universe. However, the following are potential conflicts regarding our affiliates that should be considered:

- Green Street has an advisory & consulting practice servicing investors seeking to acquire interests in publicly-traded companies. Green Street may provide such valuation services to prospective acquirers of companies which are the subject(s) of Green Street's research reports.
- An affiliate of GSA (US) is the investment manager of an equity securities portfolio on behalf of a single client. The portfolio contains securities of issuers covered by Green Street's research department. The affiliate also acts as a sub-advisor to an outside Investment Management firm. The sub-advisor will develop and provide a suggested asset allocation model based on published research that is received from the research department. The affiliate is located in a separate office, employs an investment strategy based on Green Street's published research, and does not trade with Green Street's trading desk.

Other Important Information

Management of Conflicts of Interest: Conflicts of interest can seriously impinge the ability of analysts to do their job, and investors should demand unbiased research. In that spirit, Green Street adheres to the following policies regarding conflicts of interest:

- Green Street employees are prohibited from owning the shares of any company in our coverage universe.
- Green Street employees do not serve as officers or directors of any of our subject companies.
- Neither Green Street nor its employees/analysts receives any compensation from subject companies for inclusion in our research.
- On occasion, Green Street analysts may be contacted by companies within the firm's coverage universe regarding potential employment opportunities. Additional disclosure will be made when appropriate.
- The research analysts who authored this report may hold shares of the non REIT companies mentioned in this research report. These are not companies in our coverage universe.

Please also have regard to the Affiliate Disclosures listed above when considering the extent to which you place reliance on this research report and any research recommendations made herein.

Green Street, at times, assists Eastdil Secured, a real estate brokerage and investment bank, when Eastdil Secured provides investment banking services to companies in Green Street's coverage universe. Green Street is never part of the underwriting syndicate or the selling group, but Green Street may receive compensation from Eastdil Secured for consulting services that Green Street provides to Eastdil Secured related to Eastdil Secured's investment banking services. Green Street does not control, have ownership in, or make any business or investment decisions for, Eastdil Secured.

A number of companies covered by Green Street research reports, including DLR, pay an annual fee to receive Green Street's research reports. Green Street may periodically solicit this business from the subject companies. In the aggregate, annual fees for GSA (U.S.) and GSA (UK) research reports received from subject companies represent approximately 3% of each of GSA (U.S.)'s and GSA (UK)'s respective total revenues.

Green Street publishes research reports covering issuers that may offer and sell securities in an initial or secondary offering. Broker-dealers involved with selling the issuer's securities or their affiliates may pay compensation to GSA upon their own initiative, or at the request of Green Street's clients in the form of "soft dollars," for receiving research reports published by Green Street.

The information contained in this presentation is based on data obtained from sources we deem to be reliable; it is not guaranteed as to accuracy and does not purport to be complete. This presentation is produced solely for informational purposes and is not intended to be used as the primary basis of investment decisions. Because of individual client requirements, it is not, and it should not be construed as, advice designed to meet the particular investment needs of any investor. This presentation is not an offer or the solicitation of an offer to sell or buy any security.

For Green Street's advisory customers, this research report is for informational purposes only and the firm is not responsible for implementation. Nor can the firm be liable for suitability obligations.

GSA (US) is an accredited member of the Investorside Research Association, whose mission is to increase investor and pensioner trust in the U.S. capital markets system through the promotion and use of investment research that is financially aligned with investor interests.

GSA (US) generally prohibits research analysts from sending draft research reports to subject companies. However, it should be presumed that the analyst(s) who authored this presentation has/have had discussions with the subject company to ensure factual accuracy prior to publication, and has/have had assistance from the company in conducting due diligence, including visits to company sites and meetings with company management and other representatives.



Terms of Use

Protection of Proprietary Rights: To the extent that this presentation is issued by GSA (U.S.), this material is the proprietary and confidential information of Green Street Advisors (U.K.) Limited, and is protected by copyright. To the extent that this presentation is issued by GSA (UK), this material is the proprietary and confidential information of Green Street Advisors (U.K.) Limited, and is protected by copyright.

This presentation may be used solely for reference for internal business purposes. This presentation may not be reproduced, re-distributed, sold, lent, licensed or otherwise transferred without the prior consent of Green Street. All other rights with respect to this presentation are reserved by Green Street.

EEA Recipients: For use only by Professional Clients and Eligible Counterparties: GSA (UK) is authorized by the Financial Conduct Authority of the United Kingdom to issue this presentation to "Professional Clients" and "Eligible Counterparties" only and is not authorized to issue this presentation to "Retail Clients", as defined by the rules of the Financial Conduct Authority. This presentation is provided in the United Kingdom for the use of the addressees only and is intended for use only by a person or entity that qualifies as a "Professional Client" or an "Eligible Counterparty". **Consequently, this presentation is intended for use only by persons having professional experience in matters relating to investments. This presentation is not intended for use by any other person. In particular, this presentation intended only for use by persons who have received written notice from GSA (UK) that he/she/it has been classified, for the purpose of receiving services from GSA (UK), as either a "Professional Client" or an "Eligible Counterparty". Any other person who receives this presentation should not act on the contents of this presentation.**

This report is a property-sector review and does not contain the amount of in-depth company-specific analysis sufficient to make informed investment decisions about one specific issuer disclosed in this report. For a more thorough analysis, please review this report in conjunction with GSA's company-specific research which is available at www.greenstreetadvisors.com.

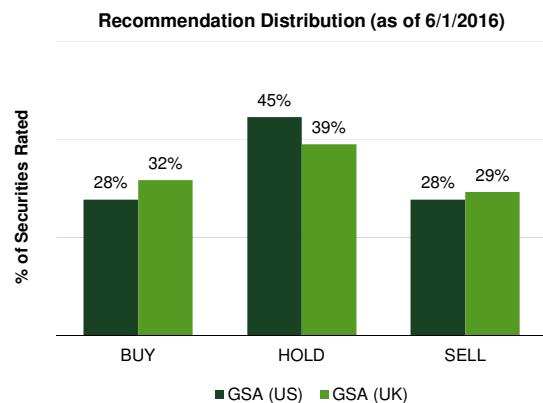
Review of Recommendations:

- Unless otherwise indicated, Green Street reviews all investment recommendations on at least a monthly basis.
- The research recommendation contained in this report was first released for distribution on the date identified on the cover of this report.
- Green Street will furnish upon request available investment information supporting the recommendation(s) contained in this report.

Green Street Advisors' Disclosure Statement

At any given time, Green Street publishes roughly the same number of "BUY" recommendations that it does "SELL" recommendations.

Green Street's "BUYs" have historically achieved far higher total returns than its "HOLDs", which, in turn, have outperformed its "SELLs".

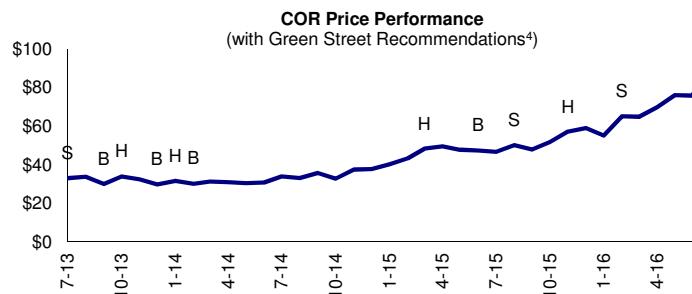


Total Return of Green Street's Recommendations^{1,2}

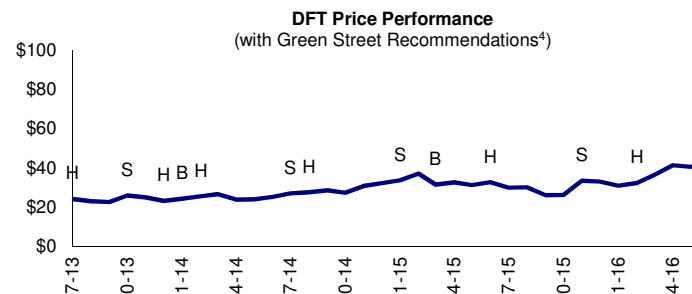
Year ³	Buy	Hold	Sell	Universe ⁴
2016 YTD	10.1%	8.8%	11.6%	10.0%
2015	8.3%	0.9%	1.7%	2.4%
2014	41.6%	31.5%	27.3%	33.3%
2013	4.1%	0.6%	1.7%	2.2%
2012	24.5%	24.7%	18.9%	23.0%
2011	18.9%	7.6%	4.7%	7.6%
2010	43.3%	32.8%	26.6%	33.8%
2009	59.0%	47.7%	6.0%	37.9%
2008	28.1%	30.9%	52.6%	37.3%
2007	6.9%	22.4%	27.8%	19.7%
2006	45.8%	29.6%	19.5%	31.6%
2005	26.3%	18.5%	1.8%	15.9%
2004	42.8%	28.7%	16.4%	29.4%
2003	43.3%	37.4%	21.8%	34.8%
2002	17.3%	2.8%	2.8%	5.4%
2001	34.9%	19.1%	13.0%	21.1%
2000	53.4%	28.9%	5.9%	29.6%
1999	12.3%	9.0%	20.5%	6.9%
1998	1.6%	15.1%	15.5%	12.1%
1997	36.7%	14.8%	7.2%	18.3%
1996	47.6%	30.7%	18.9%	32.1%
1995	22.9%	13.9%	0.5%	13.5%
1994	20.8%	0.8%	8.7%	3.1%
1993	27.3%	4.7%	8.1%	12.1%
Cumulative Total Return	15204.0%	1105.0%	28.3%	1294.1%
Annualized	24.1%	11.3%	1.1%	12.0%

Green Street Advisors' Disclosure Statement

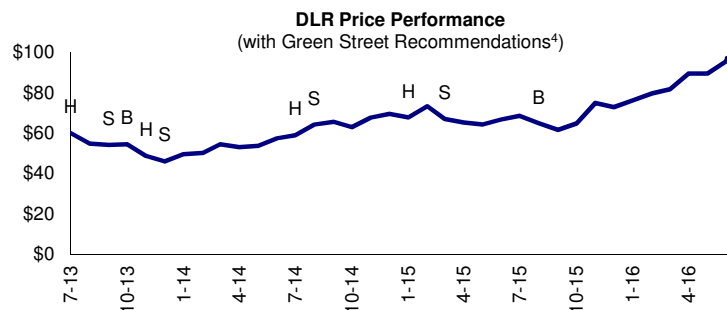
The chart below shows COR's price performance over the last three years, along with Green Street's recommendations during that time.



The chart below shows DFT's price performance over the last three years, along with Green Street's recommendations during that time.



The chart below shows DLR's price performance over the last three years, along with Green Street's recommendations during that time.



The results shown in the table in the upper right corner are hypothetical; they do not represent the actual trading of securities. Actual performance will vary from this hypothetical performance due to, but not limited to 1) advisory fees and other expenses that one would pay; 2) transaction costs; 3) the inability to execute trades at the last published price (the hypothetical returns assume execution at the last closing price); 4) the inability to maintain an equally-weighted portfolio in size (the hypothetical returns assume an equal weighting); and 5) market and economic factors will almost certainly cause one to invest differently than projected by the model that simulated the above returns. All returns include the reinvestment of dividends. Past performance, particularly hypothetical performance, can not be used to predict future performance.

- Results are for recommendations made by Green Street's North American Research Team only (includes securities in the US, Canada, and Australia). Uses recommendations given in Green Street's "Real Estate Securities Monthly" from January 28, 1993 through June 1, 2016. Historical results from January 28, 1993 through January 4, 2016 were independently verified by an international "Big 4" accounting firm. The accounting firm did not verify the stated results subsequent to January 4, 2016. As of January 4, 2016, the annualized total return of Green Street's recommendations since January 28, 1993 was: Buy +24.0%, Hold +11.1%, Sell 0.6%, Universe +11.7%.
- Company inclusion in the calculation of total return has been based on whether the companies were listed in the primary exhibit of Green Street's "Real Estate Securities Monthly". Beginning April 28, 2000, Gaming C-Corps and Hotel C-Corps, with the exception of Starwood Hotels and Homestead Village, were no longer included in the primary exhibit and therefore no longer included in the calculation of total return. Beginning March 3, 2003, the remaining hotel companies were excluded.
- The returns for each year cover the period following the first "Real Estate Securities Monthly" issued in the respective year through the first "Real Estate Securities Monthly" issued in the following year and are not based on a calendar year.
- All securities covered by Green Street with a published rating that were included in the calculation of total return. Excludes "not rated" securities.
- Green Street has only three recommendations: BUY ("B"), HOLD ("H") and SELL ("S"). The firm does not consistently publish price targets and therefore price targets are not included in this graph. Per NASD rule 2711, "Buy" = Most attractively valued stocks. We recommend overweight position; "Hold" = Fairly valued stocks. We recommend market-weighting; "Sell" = Least attractively valued stocks. We recommend underweight position.

Green Street will furnish upon request available investment information regarding the recommendation

Green Street Advisors North American Team

Research 660 Newport Center Drive, Suite 800 Newport Beach, CA 92660 +1.949.640.8780

Research	Mike Kirby, Director of Research Craig Leupold, President Michael Knott, CFA, Director of U.S. REIT Research Cedrik Lachance, Director of U.S. REIT Research	mkirby@greenst.com cleupold@greenst.com mknott@greenst.com clachance@greenst.com
Health Care/Lab Space	Kevin Tyler, Analyst Andrew Suh, Associate	ktyler@greenst.com asuh@greenst.com
Industrial/Tower	Eric Frankel, CFA, Analyst Vince Tibone, Associate	efrankel@greenst.com vtibone@greenst.com
Lodging/Data Centers	Lukas Hartwich, CFA, Senior Analyst David Guarino, Associate	lhartwich@greenst.com dguarino@greenst.com
Malls	Daniel Busch, Senior Analyst Spenser Allaway, Senior Associate	dbusch@greenst.com sallaway@greenst.com
Net Lease	Cedrik Lachance, Director of U.S. REIT Research Tyler Grant, CFA, Senior Associate	clachance@greenst.com tgrant@greenst.com
Office	Jed Reagan, Senior Analyst Tyler Grant, CFA, Senior Associate Chris Belosic, Associate	jreagan@greenst.com tgrant@greenst.com cbelosic@greenst.com
Residential/Self-Storage	Dave Bragg, Managing Director Ryan Burke, Analyst Conor Wagner, Analyst John Pawlowski, CFA, Senior Associate Ryan Lumb, Associate	dbragg@greenst.com rburke@greenst.com cwagner@greenst.com jpawlowski@greenst.com rlumb@greenst.com
Strip Centers	Jason White, CFA, CPA, Senior Analyst Jay Carlington, CFA, Analyst	jwhite@greenst.com jcarlington@greenst.com
Real Estate Analytics	Andrew McCulloch, CFA, Managing Director Joi Mar, Analyst Chris Darling, Associate Rob Filley, Associate	amcculloch@greenst.com jmar@greenst.com cdarling@greenst.com rfilley@greenst.com
Quantitative Analytics	Michael Knott, CFA, Director of U.S. REIT Research Peter Rothmund, CFA, Senior Analyst Matt Larriva, CFA, Senior Associate Garrett Wiegele, Associate Stephen Pazzano, Associate Christina Zhang, CFA, Associate	mknott@greenst.com prothemund@greenst.com mlarriva@greenst.com gwiegele@greenst.com spazzano@greenst.com czhang@greenst.com

Advisory & Consulting 660 Newport Center Drive, Suite 800 Newport Beach, CA 92660 +1.949.640.8780

	Jim Sullivan, Managing Director Dirk Aulabaugh, Managing Director Matt Wokasch, CFA, Senior Vice President Phil Owens, CFA, Senior Vice President David De La Rosa, Senior Vice President Justin Brown, Vice President Tom Calahan, Vice President* Adam Goldblatt, Senior Associate Casey Thormahlen, Senior Associate Bayle Smith, Senior Associate Pierre Rigaud, Associate Marcos Cardenas, Associate Aaron Herrmann, Associate Tyler Blue, Associate Nathan Siino, Associate	jsullivan@greenst.com daulabaugh@greenst.com mwokasch@greenst.com powens@greenst.com ddelarosa@greenst.com jbrown@greenst.com tcalahan@greenst.com agoldblatt@greenst.com cthormahlen@greenst.com bsmith@greenst.com prigaud@greenst.com mcardenas@greenst.com aherrmann@greenst.com tblue@greenst.com nsiino@greenst.com
--	---	---

Subscription Sales & Marketing 660 Newport Center Drive, Suite 800 Newport Beach, CA 92660 +1.949.640.8780

Sales	Damon Scott, Managing Director, Subscription Sales Kevin Johnson, Senior Vice President, Subscription Sales Matt Souter, Vice President, Subscription Sales Kristen Angle, Vice President, Subscription Sales	dscott@greenst.com kjohnson@greenst.com msouter@greenst.com kangle@greenst.com
Marketing	Rosemary Pugh, Vice President, Marketing	rpugh@greenst.com
Product Management	Randy Wussler, Product Manager	rwussler@greenst.com

Brokerage services offered through Green Street Trading

Trading & Equity Sales 600 North Pearl Street, Suite 2310 Dallas, TX 75201
1.800.263.1388 (Trading) +1.214.855.5905 (Sales)

Trading	Michael Vranich, Managing Director, Trading Laurie Hauck, Vice President, Trading Scott Lee, Vice President, Trading Hayden Glasstetter, Trading Associate	mvrnich@greenstreettrading.com lhauck@greenstreettrading.com slee@greenstreettrading.com hglassstetter@greenstreettrading.com
Institutional Sales	Kris Hoffman, Senior Vice President, Co-Head Equity Sales Seth Laughlin, Senior Vice President, Co-Head Equity Sales Tim Joy, Vice President, Equity Sales Scott Bell, Vice President, Equity Sales Eric Lovett, Vice President, Equity Sales Ryan Miller, Equity Sales Associate Paul Eager, Equity Sales Associate	khoffman@greenstreettrading.com slaughlin@greenstreettrading.com tjoy@greenstreettrading.com sbell@greenstreettrading.com elovett@greenstreettrading.com rmiller@greenstreettrading.com peager@greenstreettrading.com

*These employees operate in a support capacity and are not yet licensed.