Green Street Advisors

REAL ESTATE ANALYTICS

U.S. APARTMENT OUTLOOK

— JANUARY 16, 2019 —

IMPORTANT DISCLOSURE ON PAGE 42

Executive Summary

Overview

Apartment operating fundamentals reaccelerated modestly in '18, as outstanding job growth helped absorb another year of elevated new construction. Rental demand drivers remain favorable and will continue to support positive apartment fundamentals early into the next decade. Nevertheless, the demand versus supply balance in most markets should soften over the next five years as the U.S. economy adds fewer jobs, demographic cracks start to appear, and developers continue to build in earnest. Pockets of oversupply, which have been limited for much of this cycle, should become more prevalent under a different demand light. We expect pricing power in gateway markets to modestly outperform non-gateway markets over the next five years due to lower supply growth and a much tougher path to homeownership.

Despite rising interest rates in '18, cap rates held steady or edged slightly lower in most markets. The transaction market enjoyed plenty of liquidity throughout '18, which appears likely to continue in '19. Apartments remain a readily financeable asset class, and the private market affinity for U.S. multifamily from both domestic and foreign capital sources is showing no signs of abating. Within a commercial real estate world where most property types are expected to generate inflation or sub-inflation NOI growth and cap rates remain historically low, unlevered return expectations for apartments screen attractively versus most property types.

Key Takeaways

- Our 5-year base case economic outlook is characterized by positive, but slowing GDP growth (~1.9%)

Authors

John Pawlowski, CFA, *Senior Analyst*
Michael Stroyeck, *Associate*
Alan Peterson, *Associate*
Galen Faurot-Pigeon, *Associate*

Table of Contents

Sections			Page:
I.	U.S. Apartment Outlook Summary		4
II.	Major Risk Factors		6
III.	Apartment 101		7
IV.	The Forces Shaping Apartment Demand		11
V.	Key Macro Assumptions		12
	a.	Households & Homeownership	12
	b.	Renter Demand	13
	c.	Apartment Turnover	14
	d.	The Single-Family Market	15
	e.	Single-Family Rental Landscape	18
	f.	Employment	20
	g.	Affordability	21
	h.	Demographics	22
	i.	Multifamily Supply Landscape	27
VI.	Gateway vs. Non-Gateway: Growth and IRRs		29
VII.	Operating Expenses		31
VIII.	The Financing Environment		32
IX.	The Transaction Market		33
X.	Asset Values		34
XI.	Apartments: A Long-Term Overweight		36

Appendices		
A.	Composition of U.S. Housing Stock	39
B.	Apartment REIT NOI Concentrations by Market	40
C.	Apartment Submarket Grades	41

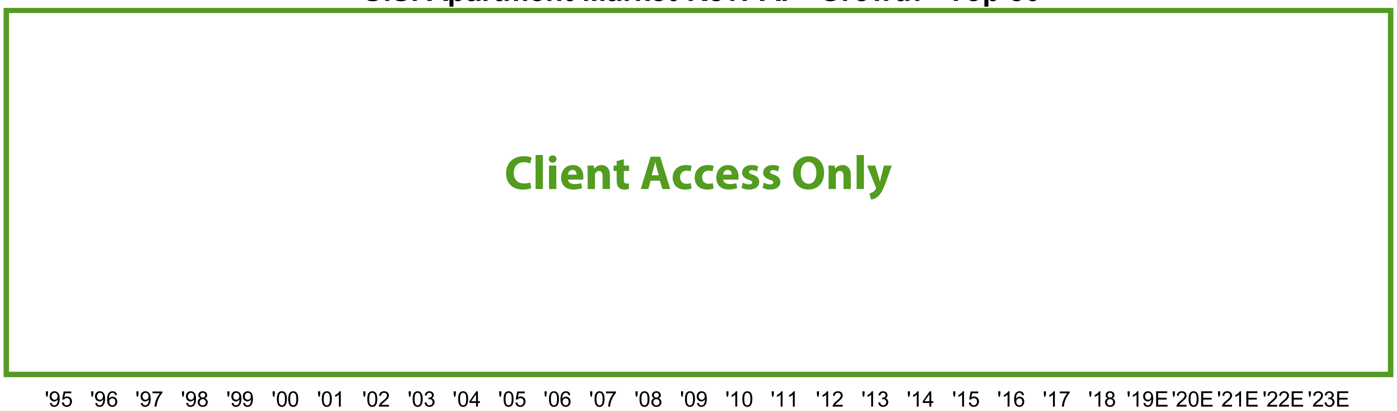
660 Newport Center Drive, Suite 800, Newport Beach, CA 92660
T + 1 949 640 8780 / greenstreetadvisors.com

Important disclosure on page 42

I. U.S. Apartment Outlook Summary

Low-Growth World: Apartment M-RevPAF* growth reaccelerated in '18, exceeding our initial expectations set a year ago by ~100 bps, largely due to outstanding job growth in most markets. We expect similar landlord pricing power in '19, but a moderation in growth toward sub-inflation levels early next decade. New supply will not slow meaningfully over the near-term, and demand drivers, including employment and demographic trends should soften.

U.S. Apartment Market-RevPAF* Growth - Top 50



Market-RevPAF Growth Momentum

(2019E vs. 2018)

***M-RevPAF growth combines changes in effective rents and occupancies into a single measure.**

Source: CBRE and Green Street Advisors.

I. U.S. Apartment Outlook Summary (cont'd)

Market	M-RevPAF Growth '19E	M-RevPAF Growth '19E-'23E	Employment Growth '19E - '23E	Supply Growth '19E - '23E	M-RevPAF Growth Rank '19E - '23E	5-Yr Forecast Δ in Rank
Fort Lauderdale	5.1%	4.2%	+	++	1	24
Orlando	3.6%	3.3%	++	--	2	12
Denver						
Boston						
Palm Beach						
San Francisco						
Phoenix						
San Jose						
Atlanta						
Las Vegas						
Tampa						
New York						
Los Angeles						
Miami						
Chicago						
Inland Empire						
Jacksonville						
Long Island						
Austin						
San Diego						
Richmond						
Suburban VA						
Indianapolis						
Charlotte						
D.C.						
Suburban MD						
San Antonio						
Sacramento						
Norfolk						
Columbus						
Pittsburgh						
Fairfield County						
Houston						
Salt Lake City						
Orange County						
Detroit						
Raleigh-Durham						
Portland						
Cleveland						
Central NJ						
Dallas						
Philadelphia						
Nashville						
Minneapolis						
Northern NJ						
Seattle						
Oakland						
Baltimore						
Cincinnati						
Kansas City						
Memphis						
St. Louis						

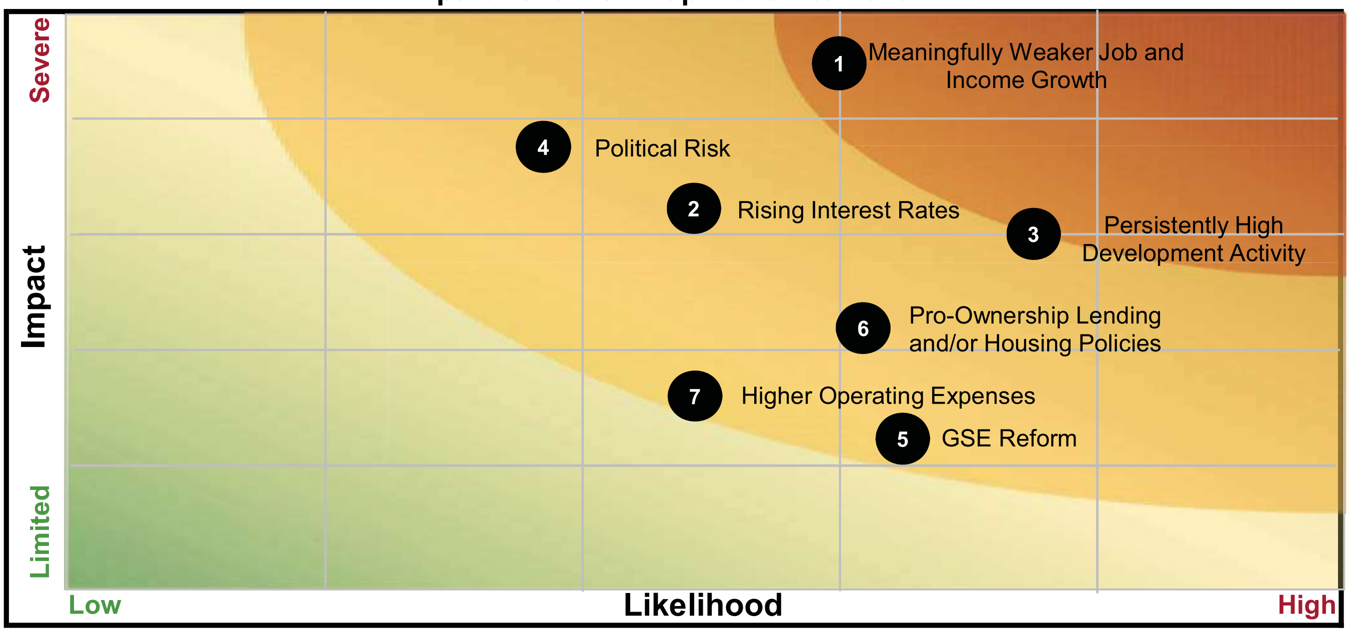
Rank:	1-10	11-20	21-30	31-40	41-52
	++	+	●	-	--

Source: CBRE, IHS, and Green Street Advisors. Forecasts represent annualized numbers.

II. Major Risk Factors

Avoiding Potholes: Times are still relatively good for apartment owners versus many property types, despite expected rent growth deceleration. Nevertheless, risks always remain, and the following issues bear watching in the coming years due to their potential impact on operating fundamentals and/or asset values. Relative to earlier in the cycle, regulatory risk to apartments (namely rent control/stabilization) is increasing and will continue to receive plenty of focus in '19.

Apartment Risk Map: 2019E to 2023E



1 Job growth in '18 beat our expectations handily, allowing for the orderly absorption of elevated new supply in nearly every major metro. Should job growth slow meaningfully, landlords and investors will see more pockets of oversupply as new deliveries are expected to continue relatively unfettered. Oakland, Seattle, Charlotte, Dallas, and Austin screen most at-risk of over supply in '19 if job growth takes a leg down.

2

3

4

5

6

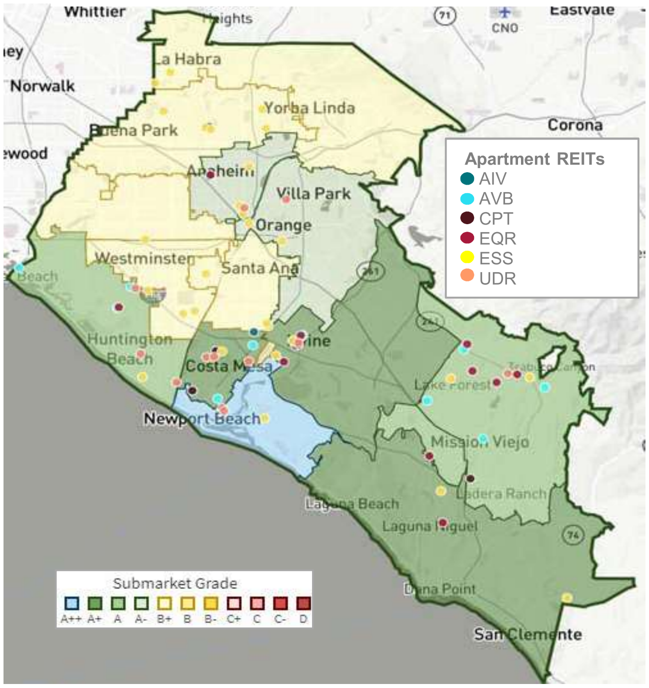
7

Appendix C: Apartment Submarket Grades

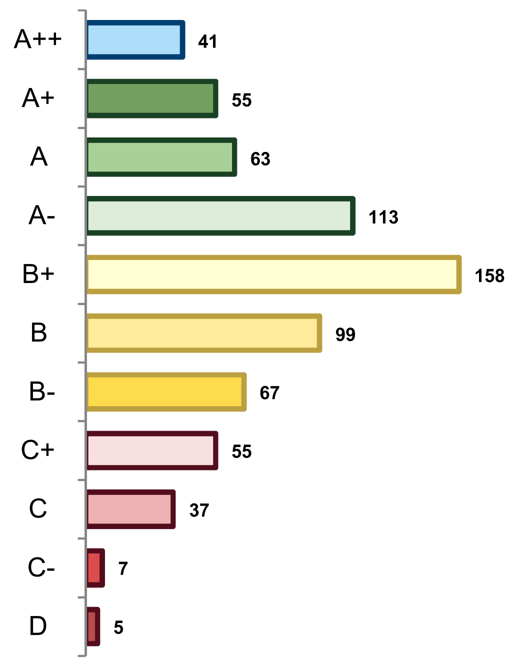
Submarket Grades: Green Street assigns letter grades to 700 submarkets across the top 52 MSAs. Grades range from A++ to D, and are meant to represent relative long-term rent growth potential.

A++ | A+ | A | A- | B+ | B | B- | C+ | C | C- | D

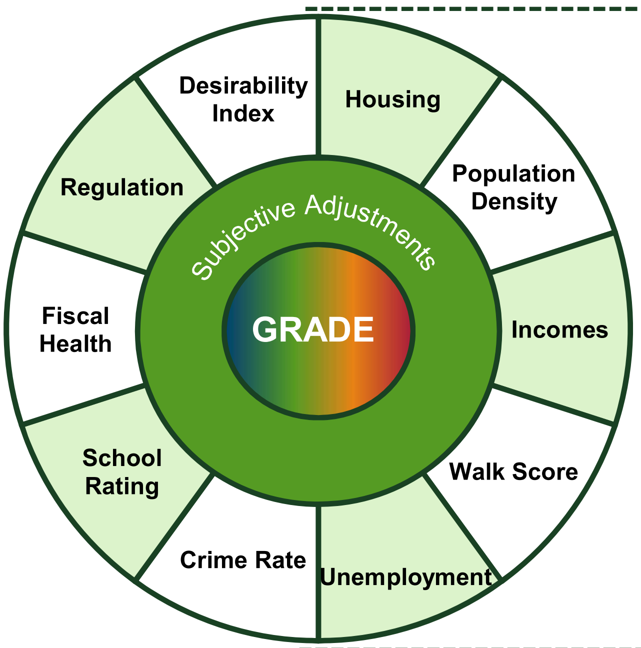
Map Example: Orange County, CA



Grade Distribution - Top MSAs



Variables: Grades are based on ten variables at the zip code level and then rolled up by submarket. Variable weightings are proprietary, and some grades include a subjective adjustment.



Submarket Variable Ranges: Top MSAs

Client Access Only

Source: GreatSchools, IHS, U.S. Census Bureau, Walk Score, and Green Street Advisors.

Atlanta

Apartment Market Snapshot - 2/1/2019

Green Street Advisors
REAL ESTATE ANALYTICS

Market Grade	Risk		CPPI		Cap Rate		LT NOI Growth	Risk Adj. IRR
	Volatility	Beta	Index	YoY Δ	Current	YoY Δ		
B	High	1.0	148.1	5.7%	5.5%	-5 bps	0.6%	5.7%

MARKET METRICS

Metric	Current	Rank of 52
Avg. Effective Rents	$1,210	30
Occupancy	94.7%	45
YOY M-RevPAF Growth	4.3%	14
YOY Job Growth	2.5%	15
Median Income	$69k	29
Homeownership Rate	54.7%	27
Med. Home Price	$210k	37
Apartment Units	433,000	7
Households	2,301k	6

COMMENTARY

Atlanta: Home to UPS, Delta Airlines, and Coca-Cola, Atlanta has established itself as a pro-business city which continues to support healthy job growth. Buckhead and Midtown offer a desirable lifestyle with walkable neighborhoods, strong transportation systems, and proximity to workplaces, resulting in increased millennial and overall rent demand. Given Atlanta's strong demand profile, near-term M-RevPAF growth is likely to be above the national average. Traffic congestion continues to be an issue; the city and state are investing $2.5B to improve the MARTA system. Steady demand from employers and residents has been met with increased supply, specifically in the underutilized Downtown submarket, including a $5B redevelopment in the Gulch area, which will add 1,000 residential units. Further, as developers continue to find success in rezoning opportunities, Atlanta's low-barrier environment keeps a lid on long-term NOI growth.

TOP 10 EMPLOYERS

- Delta Air Lines
- Emory University
- The Home Depot
- Gwinnett County Public Schools
- WellStar Health System
- AT&T
- UPS
- Northside Hospital
- Piedmont Healthcare
- Marriott International

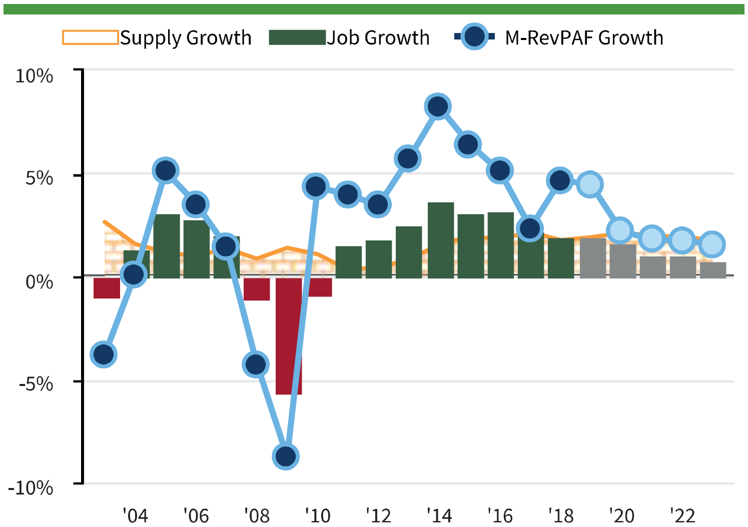
Strengths

- Large university presence creates strong talent pool
- 14 Fortune 500 companies are headquartered in Atlanta
- Growing millennial population

Weaknesses

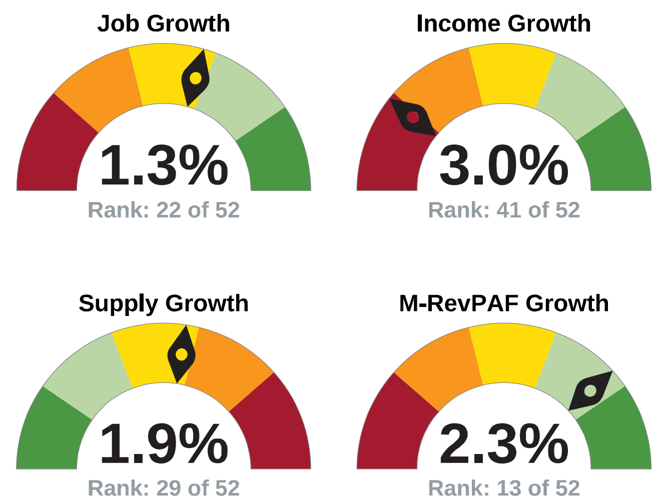
- Rent concessions remain elevated above national levels
- Affordable home prices encourages homeownership
- Traffic congestion

SUPPLY AND DEMAND



5-YEAR FORECASTS

(Growth Rates Annualized; Rankings 1-52 w/ 1 being best)



Sources: BLS, CBRE, IHS, U.S. Census Bureau, and Green Street Advisors.

660 Newport Center Drive, Suite 800, Newport Beach, CA 92660
T + 1 949 640 8780 / greenstreetadvisors.com

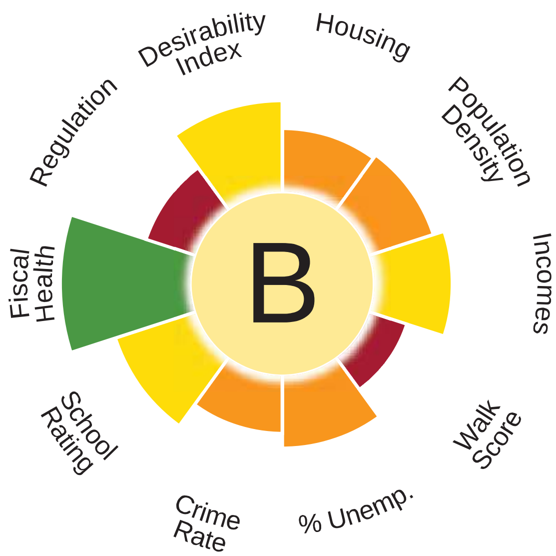
Important disclosure on last page

Atlanta

Apartment Market Snapshot - 2/1/2019

Green Street Advisors
REAL ESTATE ANALYTICS

MARKET GRADE



SUBMARKETS

TOP 15 SUBMARKETS (RANKED BY GRADE)

	Submarket	Occ.	Rent	Med. Home Price	Affordability	Pop/Sq. Mi.	Med. HHI	Walk Score	Description	% Unemp.	Crime Rate	School Rating	Grade
1	Midtown	93.2%	$1,660	$274k	Neutral	8,330	$73k	78	Very Walkable	3.5%	57	3.5	A
2	Buckhead	93.5%	$1,700	$478k	Very Expensive	4,150	$92k	62	Somewhat Walkable	2.7%	41	7.7	A
3	Cumberland	93.4%	$1,340	$618k	Very Expensive	1,840	$120k	23	Car-Dependent	2.1%	44	8.7	A-
4	Alpharetta / Roswell	93.9%	$1,270	$356k	Expensive	1,920	$100k	21	Car-Dependent	3.9%	31	8.4	A-
5	Sandy Springs / Dunwoody	93.5%	$1,280	$396k	Expensive	3,140	$78k	27	Car-Dependent	4.3%	49	6.8	B+
6	Northeast	94.5%	$1,270	$366k	Expensive	3,550	$70k	38	Car-Dependent	3.7%	51	6.3	B+
7	Peachtree Corners	94.1%	$980	$247k	Neutral	2,650	$58k	27	Car-Dependent	5.6%	52	6.7	B+
8	Marietta	94.7%	$1,070	$235k	Cheap	2,340	$76k	21	Car-Dependent	5.5%	41	7.1	B+
9	Smyrna	94.5%	$1,090	$225k	Cheap	4,210	$64k	37	Car-Dependent	4.5%	61	4.3	B+
10	North DeKalb	94.0%	$1,200	$251k	Neutral	3,420	$61k	36	Car-Dependent	6.9%	54	5.6	B+
11	Gwinnett	94.3%	$1,100	$208k	Cheap	1,940	$74k	18	Car-Dependent	5.4%	38	7.6	B+
12	Downtown	90.1%	$1,150	$196k	Neutral	8,220	$36k	82	Very Walkable	16.8%	84	2.5	B
13	West	94.1%	$1,090	$151k	Very Cheap	1,030	$58k	16	Car-Dependent	7.9%	50	5.3	B-
14	Airport / South	94.2%	$950	$154k	Very Cheap	1,010	$55k	22	Car-Dependent	9.3%	60	4.7	B-
15	South DeKalb	93.3%	$890	$124k	Very Cheap	2,030	$52k	21	Car-Dependent	10.0%	61	3.3	B-
	Atlanta	**94.7%**	**$1,210**	**$210k**	**Cheap**	**1,590**	**$67k**	**22**	**Car-Dependent**	**6.7%**	**48**	**5.8**	**B**

Sources: GreatSchools, U.S. Census Bureau, Walk Score, and Green Street Advisors.

660 Newport Center Drive, Suite 800, Newport Beach, CA 92660
T + 1 949 640 8780 / greenstreetadvisors.com

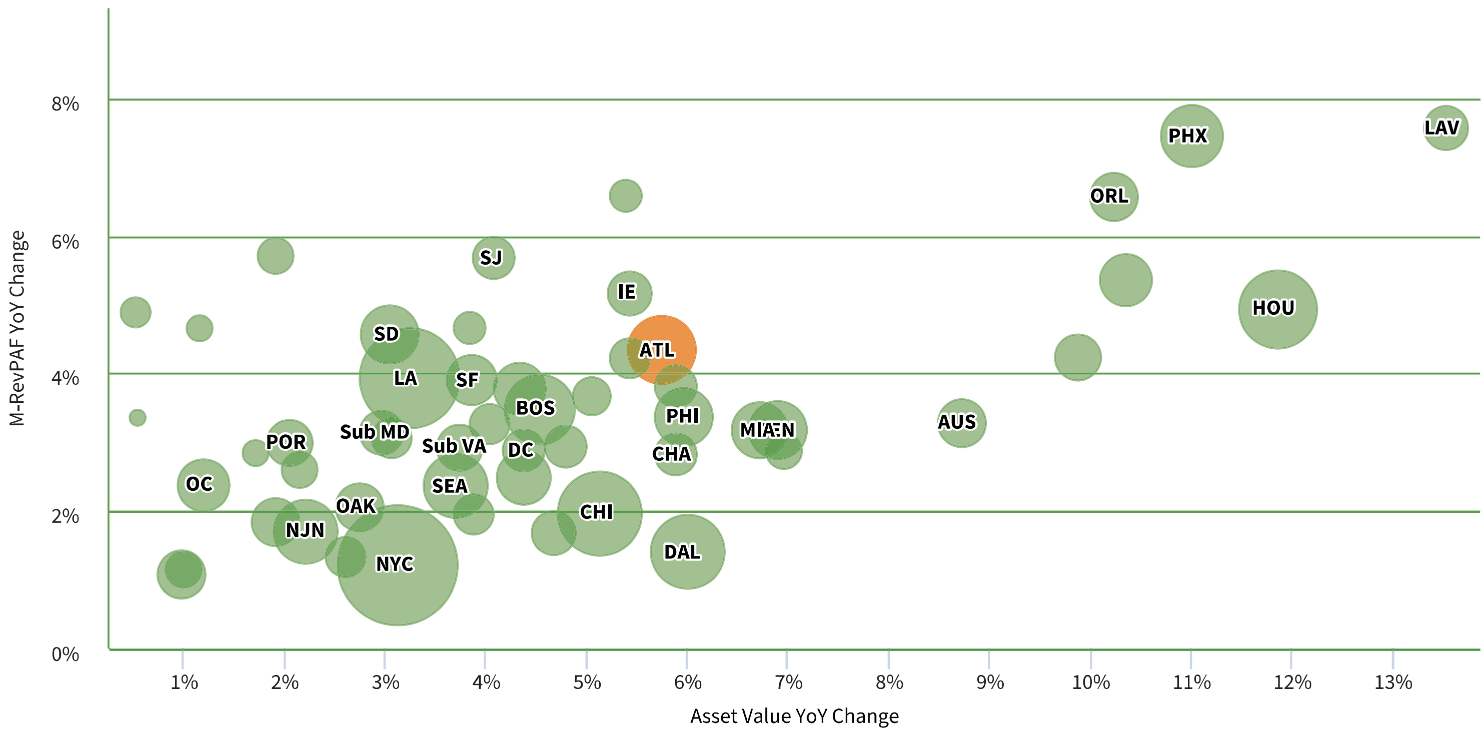
Important disclosure on last page

Atlanta

Apartment Market Snapshot - 2/1/2019

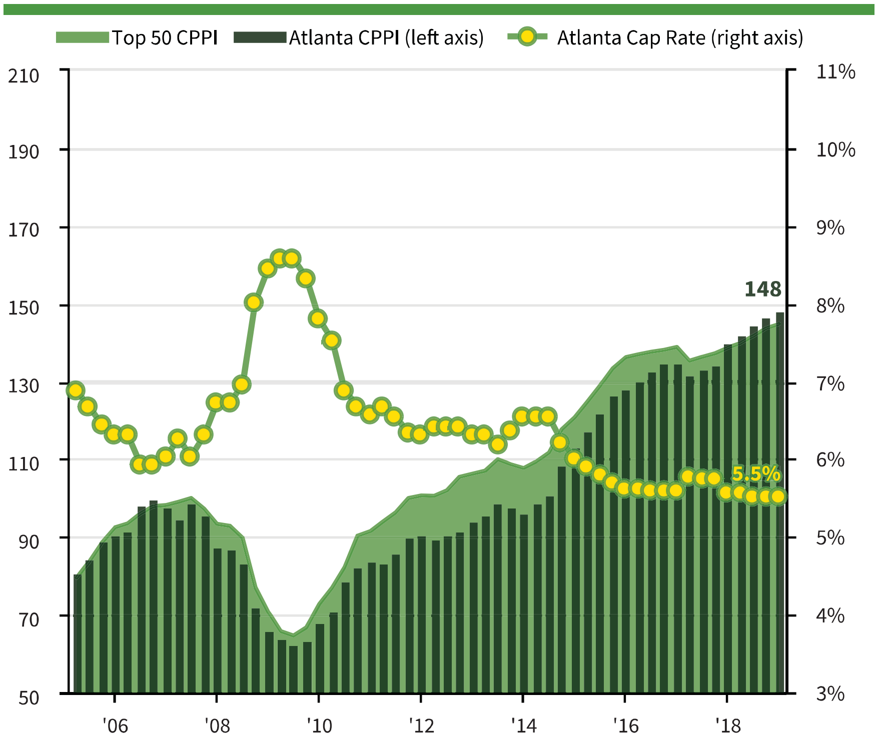
Green Street Advisors
REAL ESTATE ANALYTICS

MOMENTUM



Note: Size of bubble represents size of market.

ASSET VALUES

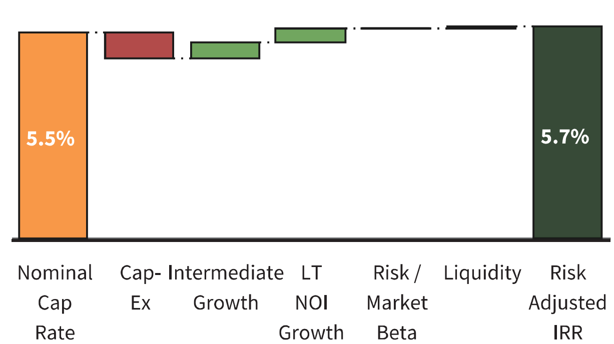


Source: Green Street Advisors.

MARKET VALUATION

Nominal Cap Rate	5.5%
Cap-Ex Reserve (% NOI)	-12.5%
Economic Cap Rate	4.8%
Intermediate NOI Growth ('19 - '23)	2.2%
Long-Term NOI Growth	0.6%
Unlevered IRR	5.6%
Risk/Market Beta IRR	0.0%
Liquidity	0.1%
Risk Adjusted IRR	5.7%

Unlevered IRR

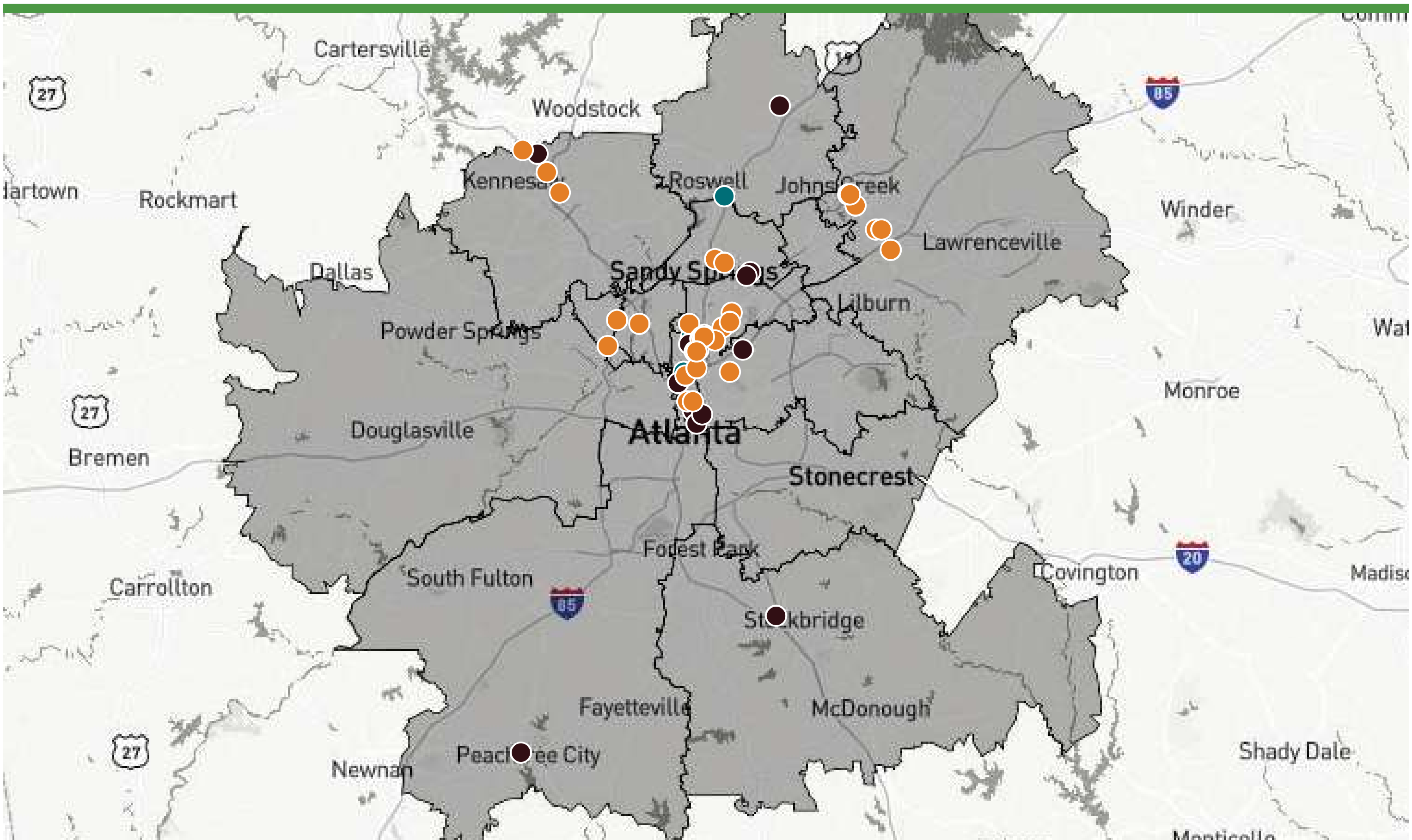


Atlanta

Apartment Market Snapshot - 1/17/2019

Green Street Advisors
REAL ESTATE ANALYTICS

REIT PROPERTIES



ATLANTA PORTFOLIO SUMMARY

Name	Submarket Grade	Zip Code Grade	% of REIT NOI	# Props	Units	Nominal Cap Rate
MAA	B+	A-	13%	29	10,300	5.3%
Camden Prop Trust	B+	A-	9%	14	4,500	5.2%
AIMCO	A-	A	2%	5	800	5.1%
Total REIT Exposure			**3%**			**5.2%**

Green Street's Disclosure Information

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. 482269]).

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 Green Street is an investment manager implementing a real estate securities strategy focused on REITs. The portfolios managed by this affiliate contain securities of issuers covered by Green Street's research department. The affiliate is located in separate offices, employs an investment strategy based on Green Street's published research, and does not trade with Green Street's affiliated trading desk, Green Street Trading (GST). However, the investment management affiliate has engaged GST as a placement agent for an investment partnership it manages. The principals of Green Street Advisors, Green Street Investors and affiliates have invested in GSREF, L.P.

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 AIV, AVB, CPT, EQR, ESS, MAA and UDR, 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 (US) and GSA (UK) research reports received from subject companies represent approximately 3% of each of GSA (US)'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 report 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 report 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 report is not an offer or the solicitation of an offer to sell or buy any security.

Green Street Advisors, LLC is a Registered Investment Advisor. Services are only offered to clients or prospective clients where Green Street Advisors, LLC and its representatives are properly licensed or exempt from licensure.

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) generally prohibits research analysts from sending draft research reports to subject companies. However, it should be presumed that the analyst(s) who authored this report 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.

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.

Terms of Use

Protection of Proprietary Rights: To the extent that this report is issued by GSA (US), this material is the proprietary and confidential information of Green Street Advisors, LLC, and is protected by copyright. To the extent that this report 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 report may be used solely for reference for internal business purposes. This report 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 report are reserved by Green Street.

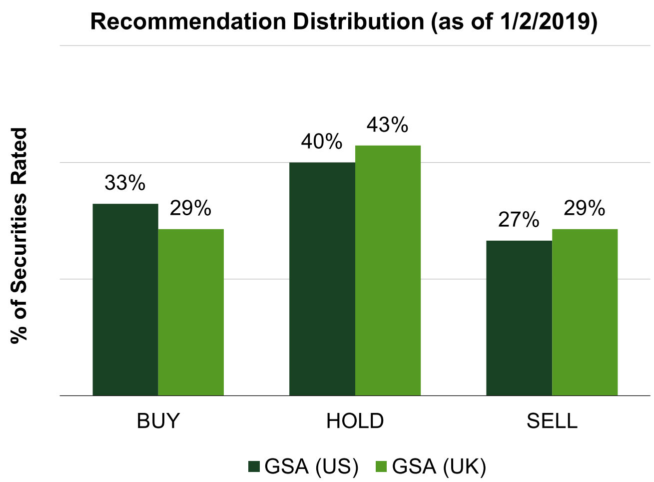
EEA Recipients: For use only by Professional Clients and Eligible Counterparties: GSA (UK) is authorized by the Financial Conduct Authority of the United Kingdom to issue this report to "Professional Clients" and "Eligible Counterparties" only and is not authorized to issue this report to "Retail Clients", as defined by the rules of the Financial Conduct Authority. This report 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 report is intended for use only by persons having professional experience in matters relating to investments. This report is not intended for use by any other person. In particular, this report 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 report should not act on the contents of this report.**

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's Disclosure Information

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
2018	-5.1%	-6.6%	-9.2%	-7.0%
2017	6.4%	0.2%	2.1%	2.6%
2016	14.9%	14.7%	13.1%	14.4%
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%	2.6%	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	**16034.3%**	**1088.0%**	**20.5%**	**1285.5%**
Annualized	**21.7%**	**10.0%**	**0.7%**	**10.7%**

The results shown above are hypothetical; they do not represent the actual trading of securities. Actual performance will vary from the hypothetical performance shown above 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 returns above 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, cannot be used to predict future performance. Investing involves risk and possible loss of principal capital.

(1) Results are for recommendations made by Green Street's North American Research Team only (includes securities in the US, Canada, and Australia). Since July 5, 2017, performance is calculated whenever a recommendation is changed using the share price at the most recent market close. Previously, performance was based on recommendations provided in Green Street's "Real Estate Securities Monthly" (RESM) and assumed no change in recommendation between RESM publications. 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%.

(2) Beginning July 5, 2017, all companies in Green Street's North American coverage universe are included in the performance calculation. Previously, inclusion in the calculation of total return had been based on whether the companies were listed in the primary exhibit of Green Street's "Real Estate Securities Monthly" and had a rating other than "Not Rated".

(3) From 1993 until July 3, 2017, the returns for each year cover the period following the first RESM issued in the respective year through the first RESM issued in the following year and are not based on a calendar year. Subsequent to July 5, 2017, returns are based on calendar months.

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

North American Team

Green Street Advisors

Research		
Strategic Research	Mike Kirby, Director of Research Dave Bragg, Managing Director Peter Rothemund, CFA, Managing Director Zane Carmean, Senior Associate	mkirby@greenst.com dbragg@greenst.com prothemund@greenst.com zcarmean@greenst.com
Company and Sector Research	Cedrik Lachance, Director of REIT Research	clachance@greenst.com
Industrial/Towers/Self-Storage	Eric Frankel, CFA, Senior Analyst Ryan Lumb, Senior Associate	efrankel@greenst.com rlumb@greenst.com
Lodging/Data Centers/Health Care	Lukas Hartwich, CFA, Senior Analyst David Guarino, Analyst	lhartwich@greenst.com dguarino@greenst.com
Office	Daniel Ismail, CFA, Analyst Chris Darling, Senior Associate	dismail@greenst.com cdarling@greenst.com
Residential	John Pawlowski, CFA, Senior Analyst	jpawlowski@greenst.com
Retail/Net Lease	Daniel Busch, Managing Director Vince Tibone, CFA, Analyst Spenser Allaway, Analyst	dbusch@greenst.com vtibone@greenst.com sallaway@greenst.com
Research Generalists	Paulina Rojas-Schmidt, Senior Associate Ryan Miller, Senior Associate John Magee, Senior Associate Nick Fromm, Associate Alan Peterson, Associate Dylan Burzinski, Associate Galen Faurot-Pigeon, Associate	projasschmidt@greenst.com rmiller@greenst.com jmagee@greenst.com nfromm@greenst.com apeterson@greenst.com dburzinski@greenst.com gfaurot-pigeon@greenst.com
Quantitative Analytics	Matt Larriva, CFA, Senior Analyst Stephen Pazzano, Senior Associate Michael Eynon, Senior Associate	mlarriva@greenst.com spazzano@greenst.com meynon@greenst.com
Real Estate Analytics	Andrew McCulloch, CFA, Managing Director Joi Mar, CFA, Senior Analyst Casey Thormahlen, Analyst Rob Filley, Senior Associate Hunter Hite, Associate Weston Mui, Associate Claire Arora, Associate Alexandra Boyle, Associate Jared Giles, Associate Ashton Stansbury, Associate Michael Stroyeck, Associate	amcculloch@greenst.com jmar@greenst.com cthormahlen@greenst.com rfilley@greenst.com hhite@greenst.com wmui@greenst.com carora@greenst.com aboyle@greenst.com jgiles@greenst.com astansbury@greenst.com mstroyeck@greenst.com

Executive	
Craig Leupold, Chief Executive Officer	cleupold@greenst.com
Jeff Meister, Chief Financial Officer	jmeister@greenst.com

Account Management	
Damon Scott, Managing Director	dscott@greenst.com
Seth Laughlin, Managing Director	slaughlin@greenstreettrading.com

Sales	
Kris Hoffman, Managing Director	khoffman@greenst.com
Kevin Johnson, Senior Vice President	kjohnson@greenst.com

Green Street Trading*	
Michael Vranich, Managing Director	mvranich@greenstreettrading.com

Advisory	
Jim Sullivan, President	jsullivan@greenst.com
Dirk Aulabaugh, Managing Director	daulabaugh@greenst.com
Phillip Owens, CFA, Managing Director	powens@greenst.com
Justin Brown, Senior Vice President	jbrown@greenst.com

Marketing & Media Relations	
Rosemary Pugh, Senior Vice President	rpugh@greenst.com
Katie Clemons, Vice President	kclemons@greenst.com

Green Street Advisors, LLC
660 Newport Center Drive, Suite 800
Newport Beach, CA 92660
T 949.640.8780

Green Street Trading, LLC
2828 North Harwood Street, Suite 1200
Dallas, TX 75201
T 800.263.1388 (Trading) 214.855.5905 (Sales)

* Brokerage services offered through Green Street Trading

** These employees operate in a support capacity and are not yet licensed. All acts performed in the United States are supervised by Green Street Advisors US.