

Heard on the Beach

Swim With the Tide

Author:

Daniel Ismail, CFA

Managing Director & Co-Head of Strategic Research

Harsh Hemnani, CFA

Analyst, Research

Evan Lustick

Associate, Research

June 12, 2024



Heard on the Beach

Swim With the Tide

June 12, 2024



Executive Summary

Momentum can be a powerful force in investing. The recent return of the Covid-era meme stock craze, if ever briefly, highlights the impact on stock returns that herd-like behavior can have. Many investors, particularly those with a contrarian bent, may see the mania and decide to avoid these bandwagons.

However, momentum effects are nothing to scoff at in commercial real estate. A simple strategy of overweighting recent winners and underweighting recent losers proves to be a surprisingly profitable one. Investors taking this approach would have generated meaningful alpha in their property sector allocation in both the public and private market, as well as in city selection in the private market.

Where momentum breaks down is in individual REIT security selection. Buying recently outperforming REITs relative to intrasector peers has been a historically poor trading strategy. The opposite – buying recent losers – has worked better.

Momentum can serve as a simple but helpful supplement to fundamental analysis. A far better approach, however, is a relative value assessment of sectors, markets, and REITs on their real estate fundamentals as this generally proves superior to only following the crowd.

RMZ: 1,203 | DJIA: 38,712 | 10-Year T-Note: 4.32% | Baa Yield: 5.87%

Heard on the Beach June 12, 2024

Swim With the Tide: A beginner's lesson in swimming safety inevitably includes an introduction to riptides. Green Street's Newport Beach headquarters most likely has a higher proportion of surfers than the typical company, and all are aware of what to do when caught in one of these currents. The worst plan of action is to swim against the tide as going head-to-head with ocean currents is a losing proposition. Investors with a contrarian bent should take heed to this advice in commercial real estate, as similar themes play out across property sectors and cities. Swimming with the tide – or betting on recent winners – is a historically winning strategy in property investing.

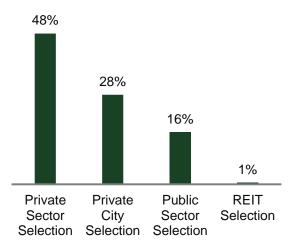
Betting on past winners feels intuitively wrong as an investor given the reasonable assumption that the good news is already priced in. Market efficiency suggests the low-hanging fruit is readily plucked, and any outperformance opportunities – particularly on such a simple premise – quickly removed. However, momentum effects are a longstanding and well-accepted anomaly in the stock market with entire strategies benchmarked against the "momentum factor". There is strong evidence of similar momentum effects in commercial real estate with the notable exception of REIT securities.

Momentum in investing refers to the concept that prior relative price performance provides predictive power over future relative returns. While anathema to all compliance officers, past has been found to be prologue across finance, including investment returns. Private commercial real estate is a prime area in which to examine momentum effects as the transmission of "new" news to values can take longer given less liquidity and higher transaction costs than marketable securities.

Underlying momentum is the idea that investors tend to underreact to new information. There is truth to this in private commercial real estate. Real estate valuations both in the form of Green Street's Commercial Property Price Index and appraisals tend to lag inflection points reflected in public REIT pricing. Green Street's CPPI moves materially faster than appraisal-based indices, but it still lags the public market's reaction to news by several months. This implies that pricing changes in the private real estate market can take several more months to manifest themselves than in the public market as our CPPI is designed to capture the 'real-time' bid for assets. Prior analysis has found that while full cycle moves in CPPI prices and appraisal-based indices are of the same magnitude, it can take over a year for the changes to materialize in appraisals – the optimal setup for momentum-based strategies to take hold.

Further, Green Street analysts tend to be surprised by changes in real estate fundamentals relative to prior expectations for consecutive quarters. In other words, there is momentum in forecast changes by Green Street: increases in rent/occupancy forecasts tend to be followed by more increases, and vice versa. This suggests both a reluctance to fully bake in new information and an under appreciation of lasting trend changes in a slow-moving real estate industry. In this regard, Green Street analysts are likely representative of many other market participants.

Long-term Alpha Capture of Momentum Strategies*



As a real estate investor, there are several different avenues to add value: public and private sector selection, REIT security selection, and private city selection. Momentum effects have been found to generate positive alpha across each one of these areas, barring REIT security selection. Simply overweighting the recently best performing sectors or cities and underweighting the worst performers would have generated meaningful outperformance over the past several decades. These findings reinforce prior analysis which found similar sector-level momentum effects in the public real estate market, but not in individual REITs.

The amount of outperformance generated relative to the potential outperformance – the so-called "alpha capture" of a strategy – is high for these momentum strategies, particularly in the slower-moving private market. Buying recent winners is particularly useful for direct real estate investors at the sector and city selection level, as it tends to take much longer for news to filter to prices on Main Street than Wall Street. Momentum strategies perform better across sectors in the private market, where demand spikes take longer to translate into rent increases, and consequent development starts, resulting in outperformance for a long period of time and vice versa. One could also argue that private investors have had a visible tendency to follow recent trends and follow certain flagship investors, which likely further amplifies momentum investing. This can be seen in intention surveys in which investors usually promise to allocate growing amounts of capital in the next year to sectors that have recently performed well. Sector momentum is therefore the most powerful trend in private real estate investing.

© 2024, Green Street – Use of this report is subject to the Terms of Use listed at the end of the report

^{*} Defined as the spread between buying recent outperforming sectors and underweighting underperforming sectors on a quarterly basis divided by the maximum potential spread. The calculation of performance and the time periods used are described on page 4.

Momentum Alpha: Momentum effects in commercial real estate have been strong over the last twenty years. Sectors and cities that have outperformed over the last quarter tend to outperform in the next quarter. Three months is an admittedly unrealistic timeframe for changing direct real estate portfolios, but longer-term measures of recent performance (six and twelve months) suggest ample opportunities on the private side for this strategy.

Prior Best Sector Performers vs. Prior Worst Performers (Rolling 12-Month Returns)*

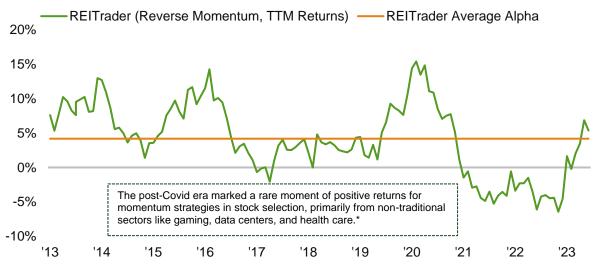
- Average Spread (Top 2 Sectors Minus Bottom 2)
- Percent of Time Strategy Outperforms



Private Market City Selection Public Market Sector Picking Private Market Sector Picking

The Odd One Out: Security selection within REIT sectors is the rare area where momentum-based strategies fizzle out. Selling winners is generally a better strategy in the public markets. This strategy tends to work better in sectors with more REITs than with fewer.

REIT Security Selection - Reverse Momentum Strategy*



^{*}The health care sector represents the biggest outlier for reverse momentum strategies, as betting *against* recent winners would have resulted in a whopping negative 28%/yr. return over the last three years.

Source: Bloomberg, Green Street

^{*} Rebalancing/ranking based on returns over prior three months. Public market sector averages use sector-specific REIT indices, while private market sector averages use Green Street's private sector-level historical returns. Private market city selection utilizes Green Street's market-level CPRIs intrasector to assess momentum at the city level. Private market sectors include apartment, industrial, office, self-storage, strip center, and single-family rental, while public market average also includes mall, net lease, health care, lodging, data center, and tower sectors. Data since '07 for private market, '97 for public market sector picking. The percentage of time of outperformance is defined as the number of quarters the strategy produced positive alpha versus the total number of quarters observed. CPRIs are available for download via Green Street's Excel Addin. NCREIF data reveals similar results for sector and regional market selection.

Private city selection is another area where momentum shines noticeably bright. The simplicity in following the herd in city selection is hard to ignore: given <u>less</u> <u>relative alpha in picking cities relative to sectors</u>, the absolute outperformance and alpha capture is meaningful. More consideration in our private city selection will be given towards recently outperforming cities.

The one area where momentum falls apart is in REIT security selection. Generally, when REITs trade at unusually wide implied cap rates relative to sector peers, they tend to revert to the mean. Green Street has taken advantage of this market inefficiency via REITrader, which spots when REITs are trading meaningfully different from sector peers over sufficient timeframes. The post-Covid experience, however, has shown that alpha generating potential declined for anti-momentum strategies. This is a noticeable break from history, but not enough to call for a reversal of long-standing trends.

In sum, momentum strategies have a remarkably good track record outside of individual REITs. Fortunately for Green Street analysts and other real estate investors in need of gainful employment, fundamental analysis does offer demonstrable benefits. Green Street recently revisited its historical track record on sector, city, and REIT investing, and the scoreboard favors a relative valuation process based in rigorous underwriting.

Momentum denialists may cry foul at a few points in this analysis: turnover tends to be higher following momentum strategies, it therefore is more academic than real in its implementation in the private market, it ignores frictional costs of trading, and this analysis may be a quirk in the data rather than representing true valuation trends. The last point rings particularly true as the scope narrows from the daily pricing of public REIT securities down to the less frequently visited private marks in tertiary cities. Further, the performance track record presented herein represents a hypothetical track record. However, the consistency of alpha generation across various lines of commercial real estate investing – both public and private – suggests momentum-based strategies are worth their salt despite these criticisms.

It is best to think of momentum as a supplement to but not a replacement for fundamental analysis in commercial real estate. A thoughtful analysis of potential returns over a long-term time period, inclusive of cap-ex, cashflow growth assumptions, and others, has been a recipe for success for patient real estate investors. However, investors should be mindful of the area where the Venn diagram of fundamental analysis and momentum overlaps, as the odds are arguably – and historically – tilted towards outperformance.

Danny Ismail, CFA Harsh Hemnani, CFA Evan Lustick



Industry-Leading Commercial Real Estate Intelligence & Analytics

Green Street is the preeminent provider of research, exclusive news, and proprietary data and analytics across public and private commercial real estate markets in the U.S., Canada, and Europe. Our comprehensive platform, proven track record, and nearly 40 years of trusted insight offers a powerful solution to help market participants maximize every opportunity, drive returns, and make better and faster investment decisions.

Our Robust Web Platform Dynamically Delivers Actionable Insights from Three Integrated Product Solutions:



RESEARCH

Green Street's unparalleled research is driven by our independent perspective, trusted proprietary data, and actionable intelligence. Our team of experts publish over 1,000 reports annually, covering a large universe of markets, sectors, and companies that explain, forecast and influence the commercial real estate environment.



୷ᡟᠰ DATA & ANALYTICS

Green Street's Data & Analytics solution provides proprietary analytics including verified sales comps, rent comps, cap rates, Commercial Property Price Indices®, return expectations, market forecasts and more, to help commercial real estate investors mitigate risk, make better investment and portfolio management decisions, and raise capital more effectively.



NEWS

Green Street's highly-regarded, timely U.S. news publications and their respective databases, plus our European, U.K., and Canadian news product delivers exclusive scoops and market intelligence on the commercial real estate and finance markets. Access Real Estate Alert, Commercial Mortgage, Asset-Backed Alert, and Green Street News.





ADVISORY SERVICES

The Advisory Services Group provides independent and objective advice to high-profile real estate market participants across private and public markets. Advisory partners with clients to offer tailored services by capitalizing on the perspective and data drawn from Green Street's 35+ years of analysis of commercial real estate markets. Services include:

Real Estate Capital Markets (IPOs, M&A, privatizations, niche sector expertise, company positioning and investor messaging)
Real Estate Advisory (portfolio strategy, transaction advisory, and portfolio valuation)
Board Services (special committees, activist situations, and company diagnostics)



100 Bayview Circle, Suite 400, Newport Beach, CA 92660 +1 (949) 640-8780

www.GreenStreet.com Contact Us



Green Street's Lens | Strengthen your investment strategies with our expert insights

Our platform of intelligence helps our clients gain a thorough understanding of the entire CRE ecosystem via macro, sector, market, company, and property-level analyses to drive more informed investment decisions.

MACRO

How macro drivers impact real estate and pricing versus capital market alternatives





Initia, in manual land

SECTOR

Detailed analysis of supply and demand operating fundamentals, and valuation for nearly 20 property types

PROPERTY

Property analytics including our Automated Valuation Model, verified Sales Comps, Rent Comps* plus lender info. at the asset level



*Data partnership with CompStak and Beekin

Explore All Research & View Sample Reports



MARKET

In-depth analysis and unique insights driving Green Street's market forecasts

COMPANY

Coverage of 135+ REITs and publicly traded real estate companies.

Proven track record of investment recommendations.

The Green Street Difference | Trusted insight, unbiased advice, & unparalleled service

Independent, Global Perspective

A trusted source for unbiased commercial real estate news, research, data, and analytics across North American and Pan-European Markets.

Public and Private Market Expertise

Coverage of direct real estate investment and the public REIT markets, from the equity and debt perspective.

Demonstrated Results

A proven ability to boldly and accurately forecast relative sector, market, and REIT stock performance, and the direction of real estate values broadly.

Breadth and Depth of Coverage

An experienced team of 80 research analysts, journalists, and data scientists, covering all things commercial real estate related.

An Easy to Use, Interactive Platform

An ability to distill vast amounts of data and information into usable intelligence and deliver it via digestible reports and data tools.

Solutions | Bringing unique advantages to investors, lenders, & other market participants

<u>Public Equity Firms</u> | <u>Private Equity Firms</u> | <u>Real Estate Companies</u> | <u>Brokers</u> | <u>Investment Banks</u> | <u>Lenders</u> Retailers | Accounting Firms | Insurance Firms | Law Firms | Pension Funds

Discover additional market-leading insights, granular data & analytics, and more through these Green Street's:



Local Data Company

Discover data and insights on every brick-and-mortar retail and leisure business across the U.K.*

Locatis[®]

Discover retail data and analytics covering the entire Benelux region and other major European cities*

IJGlobal •

Discover data, news, and events covering the global infrastructure and energy finance industry*

*Stand-alone product offering available alongside your Green Street

Green Street's Disclosure Information

This report does NOT constitute investment advice nor is it provided in the capacity of a fiduciary.

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.

Issuers of this Report US and EEA: This report has been prepared by analysts working for Green Street (Green Street US) and/or Green Street (U.K.) Limited (Green Street UK). Green Street US is the parent company of Green Street UK.

This report is issued in the US by Green Street US. Green Street UK accepts no responsibility for this report to the extent that it is read by persons based in the US.

This report is issued in the European Economic Area (EEA) by Green Street UK. Green Street US accepts no responsibility for this report to the extent that it is read by persons based in the EEA. Green Street Advisors (UK) Ltd is registered in England, (Company number. 6471304), and its registered office is 3rd & 4th Floors, 25 Maddox Street, London W1S 2QN. Green Street Advisors (UK) Ltd is authorized and regulated by the Financial Conduct Authority in the United Kingdom (FRN 482269).

References to "Green Street" in Disclosures in this section and in the Other Important Information section apply to: Green Street US to the extent that this report/presentation has been disseminated in the US; or Green Street UK to the extent that this report/presentation has been disseminated in the EEA.

Green Street US relies on the Limited Connection Relief for services provided to our clients located in Australia.

Green Street UK 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,

Green Street, along with its research professionals, are not registered as an advisor or dealer in any category with a securities regulator in Canada and any advice provided is not a solicitation to offer or sell or trade in specific securities or to provide tailored advice to any person in Canada.

Swiss recipients: the funds, the REITs, the investment companies and any collective investment schemes referred to in these reports may not have been registered with the Swiss Financial Market Supervisory Authority (FINMA) and no Swiss representative or paying agent has been appointed. This report is provided in Switzerland for the use of the addressees only and may not be distributed, copied, reproduced, or passed on to any third parties.

Green Street reserves the right to update the disclosures and policies set out in this document at any time.

Other Important Information

Automated Valuation Model: The valuation estimates do not constitute an appraisal of the properties or portfolios and should not be relied upon in lieu of an appraisal or underwriting process. The estimated values are based upon data collected from public record sources, client inputs, and Green Street proprietary metrics and models. The accuracy of the methodology used to develop the valuation estimates are based on available data and are not guaranteed or warranted. The condition of the properties and current market conditions can affect the validity of the valuation estimates and custom reports generated. Any valuation estimate and custom report generated does not include a physical inspection of the properties or a visual inspection or analysis of current market conditions by a licensed or certified appraiser, which is typically included in an appraisal.

Management of Conflicts of Interest: Conflicts of interest can seriously imping the ability of Green Street employees to do their job. In that spirit. Green Street adheres to the following policies regarding conflicts of interest:

- Green Street employees are prohibited from actively trading 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 receive 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.
- Green Street's Advisory business services investors seeking to acquire interests in publicly traded companies. Green Street may provide valuation services to prospective acquirers of companies which are the subject(s) of Green Street's research reports.

Green Street publishes research reports covering issuers that may offer and sell securities in an initial or secondary offering.

Green Street 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.

Terms of Use

Protection of Proprietary Rights: To the extent that this report is issued by Green Street US, this material is the proprietary and confidential information of Green Street and is protected by copyright. To the extent that this report is issued by Green Street UK, this material is the proprietary and confidential information of Green Street (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: Green Street Advisors (UK) Ltd is authorized by the Financial Conduct Authority of the United Kingdom EEA Recipients: For use only by Professional Clients and Eligible Counterparties: Green Street Advisors (UK) Ltd 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 is intended only for use by persons who have received written notice from Green Street (UK) that he/she/it has been classified, for the purpose of receiving services from Green Street (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 recommendations on at least a monthly basis.

If a research recommendation is contained in this report it was first released for distribution on the date identified on the cover of this report.

Green Street will furnish upon request available information supporting the recommendation(s) contained in this report.

https://mv.greenstreet.com/disclosure/ResearchDisclosure



European Team

Research 3rd and 4th Floors, 25 Maddox Street, London W1S 2QN +44 (0)20 3793 7000			
Leadership	Cedrik Lachance, Director of Research	clachance@greenstreet.com	
Head of European Research	Peter Papadakos, Managing Director	ppapadakos@greenstreet.com	
Health Care/Net Lease/Hotels	Edoardo Gili, Senior Analyst Chloe Qi, Associate	egili@greenstreet.com cqi@greenstreet.com	
Office	Adam Shapton, Analyst Alexander Totomanov, CFA, Analyst Michael Finn, Senior Associate	ashapton@greenstreet.com atotomanov@greeenstreet.com mfinn@greenstreet.com	
Residential/Self-Storage	Andres Toome, Senior Analyst Andrew McCreath, Associate	atoome@greenstreet.com amccreath@greenstreet.com	
Retail/Industrial	Rob Virdee, Senior Analyst Suraj Goyal, Senior Associate Rahul Kaushal, Associate Thomas Berry, Associate	rvirdee@greenstreet.com sgoyal@greenstreet.com rkaushal@greenstreet.com tberry@greenstreet.com	
Towers	David Guarino, Senior Analyst Edoardo Gili, Senior Analyst	dguarino@greenstreet.com egili@greenstreet.com	
Data Management	Sadie Baldwin, Senior Associate Bhavin Karsan, Senior Associate James Cattell, Associate	sbaldwin@greenstreet.com bkarsan@greenstreet.com jcattell@greenstreet.com	
Data & Analytics	Andrew McCulloch, CFA, Chief Analytics Officer	amcculloch@greenstreet.com	
Market Analytics	Marie Dormeuil, Senior Analyst	mdormeuil@greenstreet.com	
Sales 3rd and 4th Floors, 25 Maddox Street, London W1S 2QN +44 (0)20 7290 6555			
Sales	Michael Richardson, Chief Sales Officer Aaron Ling, Vice President	mrichardson@greenstreet.com aling@greenstreet.com	
Advisory 3rd and 4th Floors, 25 Maddox Street, London W1S 2QN +44 (0)20.3793.7000			
Advisory	Andy Simmons, Managing Director	asimmons@greenstreet.com	

North American Team

Research 100 Bayview Circle, Suite 400 Newport Beach, CA 92660 +1.949.640.8780			
Leadership	Cedrik Lachance, Director of Research	clachance@greenstreet.com	
Strategic Research	Peter Rothemund, CFA, Co-Head of Strategic Research Daniel Ismail, CFA, Co-Head of Strategic Research	prothemund@greenstreet.com dismail@greenstreet.com	
Company & Sector Research	Michael Knott, CFA, Managing Director, Head of U.S. REIT Research	mknott@greenstreet.com	
Data Centers/Towers	David Guarino, Senior Analyst	dguarino@greenstreet.com	
Ground Lease	Harsh Hemnani, CFA, Analyst	hhemnani@greenstreet.com	
Industrial/Malls	Vince Tibone, CFA, Managing Director	vtibone@greenstreet.com	
Lodging/Gaming	Chris Darling, CFA, Senior Analyst	cdarling@greenstreet.com	
Net Lease/Self-Storage	Spenser Allaway, Senior Analyst	sallaway@greenstreet.com	
Office	Dylan Burzinski, Analyst	dburzinski@greenstreet.com	
Residential/Health Care	John Pawlowski, CFA, Managing Director	jpawlowski@greenstreet.com	
Strip Center	Paulina Rojas-Schmidt, Senior Analyst	projasschmidt@greenstreet.com	
Data & Analytics	Andrew McCulloch, CFA, Chief Analytics Officer	amcculloch@greenstreet.com	
Market Analytics	Seth Laughlin, Head of U.S. Market Analytics	slaughlin@greenstreet.com	
Executive 100 Bayview Circle, Suite 400 Newport Beach, CA 92660 +1.949.640.8780			
Executive	Jeff Stuek, Chief Executive Officer Kris Hoffman, Chief Revenue Officer	jstuek@greenstreet.com khoffman@greenstreet.com	
Advisory 100 Bayview Circle, Suite 400 Newport Beach, CA 92660 +1.949.640.8780			
Advisory & Consulting	Dirk Aulabaugh, EVP, Global Head of Advisory	daulabaugh@greenstreet.com	
Marketing & Media Relations			
Marketing	Katie Clemons Ball, Senior Vice President, Global Marketing	kclemons@greenstreet.com	