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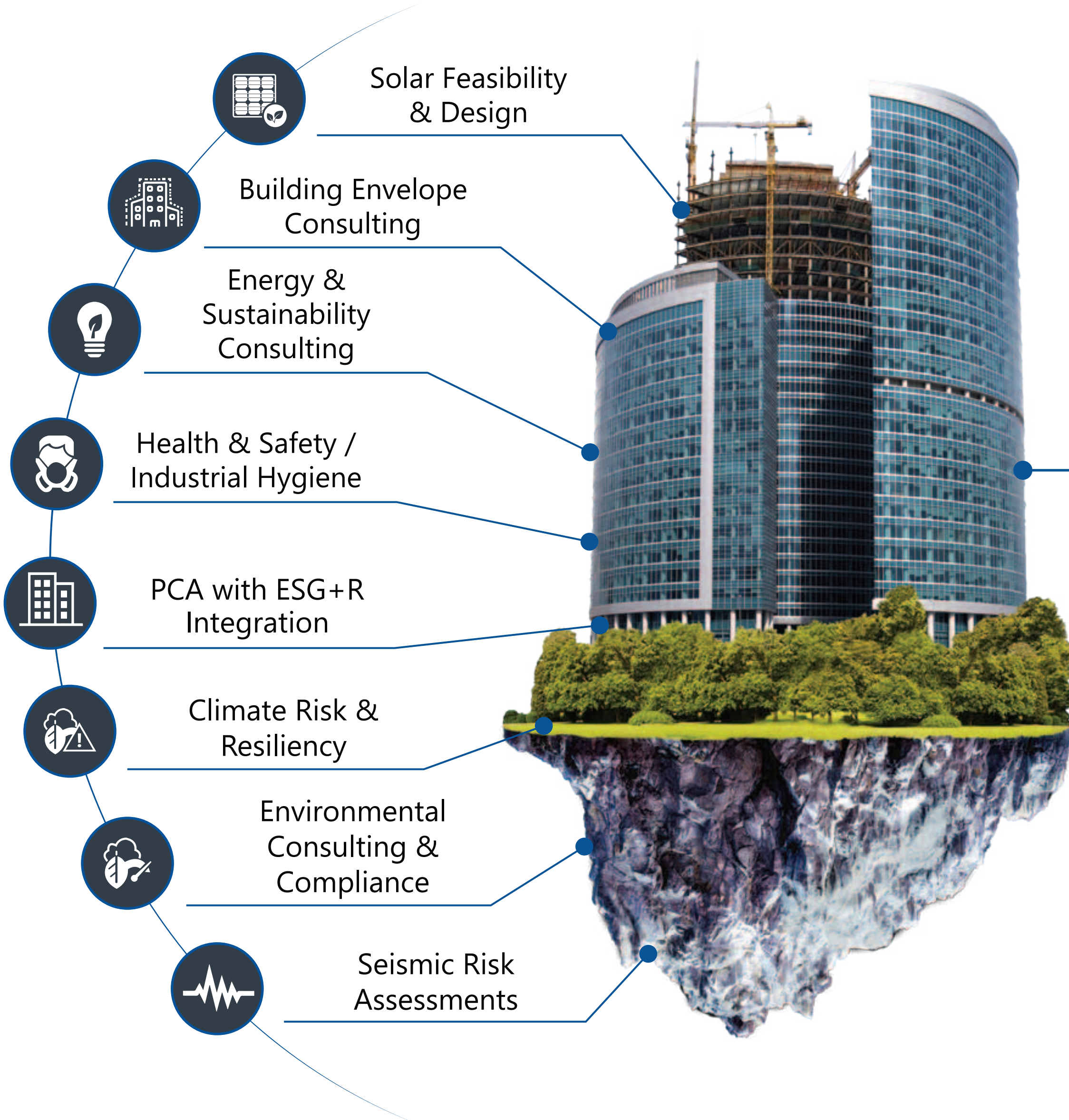

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Zoe Hughes, CEO

Kindergarteners repeatedly do better than MBA students, just as CEOs with an executive assistant in their team, do better than CEOs on their own in one simple team game involving spaghetti sticks, tape, string and one marshmallow. The goal of the Marshmallow Challenge is to build the tallest structure in 18 minutes. You can break the spaghetti and the marshmallow has to be on top — whole.

The objective is to be as innovative as your imagination allows. But what one regularly discovers with the Marshmallow Challenge is that most structures fail. And they usually fail in the final seconds of the game.

Why do kindergarteners excel? They love the iterative process. They try, they fail, they try again, they fail again. They use every innovative structure they can come up with to get the tallest structure. And they prototype throughout the 18 minutes. Importantly, they are not afraid to fail. This is a skill that has been lost by the time these students get to business school.

According to Professor Ken Robinson, all kids start school with "sparkling imaginations, fertile minds and a willingness to take risks with what they think." Then we educate them. And we embed in all children — from elementary to middle to high school, and through college, business school and into the workplace — that there is a right answer to a question.

As we look to today's world, and the risks and challenges in front of us, one right answer isn't what's needed. That premium on the right answer is stifling creative ways of thinking. Covid forced commercial real estate — and the world — to think on its feet, fast. It required critical and imaginative thought processes. It demanded new ideas for old processes and policies. Fast forward to Fall of 2021, it's not just Covid we're dealing with. Add racial and societal inequality, climate risk, decarbonization, the war for talent.

These are just today's challenges and risks. What will be tomorrow's? Do we have the leaders able to pivot, be flexible, be creative and handle issues they simply don't know are coming down the pipeline?

In our roundtable discussion on page 4, Amy Price said: "As an industry, we have historically promoted and rewarded good investors [in real estate]. They are still mission critical, but they don't necessarily have the skills that translate to being good leaders. As an industry, we need both." Part of those necessary skills will be creative thinking.

At NAREIM, we've done a lot of work with members on DEI. In 2021, institutional investors have repeatedly raised during our series of LP Perspectives on DEI that diversity is not just about gender and ethnicity, but diversity of thought. It's about recruiting, retaining, training and developing into leaders, people who come not only from different backgrounds, but who think differently, have different experiences and approach problems from different perspectives.

If anything can be certain about tomorrow, it's that tomorrow's world will need lots of different answers. It will need leaders who can innovate and be okay to fail.

So, the next time you're in the supermarket, grab some spaghetti, string, tape and a marshmallow and test yourself against the kids. Tell me who wins.

Leading *in* times *of* CHANGE

As the Covid-19 pandemic is speeding up changes in the industry, cultural shifts are happening on the ground. Firms are having to rethink strategies for attracting and retaining talent, for succession planning and for ensuring the longevity of their organization within a growing industry.

NAREIM *and* **Bill Ferguson** *of Ferguson Partners speak with* **Molly Bordonaro** *of The Green Cities Company,* **Dave Kutayiah** *of Clarion Partners,* **Amy Price** *of BentallGreenOak and* **David Schwartz** *of Waterton Associates to discuss traits of great leaders and where the next generation of real estate investment management leadership will come from in a post-Covid world.*

By Bill Ferguson and Zoe Hughes

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PARTICIPANTS

Molly Bordonaro
Managing Partner, **The Green Cities Company**
Molly oversees investment management, investor relations and asset management. With more than 20 years of commercial real estate experience including transactions, financing, management, leasing and operations, she also serves on the firm's Investment Committee. Previously, Molly was a principal at The Gallatin Group and a co-founding director of an investment fund specializing in the financing of real estate development in low and moderate-income areas. From 2005 to 2009, she served as the US Ambassador to the Republic of Malta.

William J. Ferguson
Chairman and CEO, **Ferguson Partners**
Bill conducts senior management recruiting assignments, with a specialization in president/chief executive officer searches and recruiting assignments for boards of trustees/directors. He also conducts CEO succession planning assignments and facilitates public company board assessments and senior management assessments. Before founding Ferguson Partners, Bill was a managing director with one of the leading international executive recruiting consultants. There, he co-managed the firm's national real estate practice. Prior to focusing on real estate, Bill worked for General Mills, Inc. in strategic marketing.

Dave Kutayiah
Managing Director, Head of Human Resources, **Clarion Partners**
Dave is responsible for managing all human capital activities for the firm. His responsibilities include talent acquisition, management and development; compensation and benefits; employee engagement and social responsibility activities. He is a member of Clarion Partners' Operating, Talent Management, Social Responsibility Committees, Compensation Committee and an advisor to the Clarion Executive Board. Dave joined Clarion Partners in 2008 and began working in the financial services industry in 1996, supporting both public securities and private equity businesses.

Amy Price
President, **BentallGreenOak**
In her role, Amy also co-heads the firm's US Investment Management business and oversees its Canadian Investment Management and Real Estate Services businesses. Amy is a member of the Management Committee, chairs the US Investment Committee for the firm's core, core plus and separate account clients, and co-chairs the US Management Committee. Amy also leads BGO's equity, diversity and inclusion (EDI) initiatives globally and chairs the firm's EDI Leadership Council. Prior to joining the firm in 2012, Amy was a managing director and head of real estate investing for the Western US at Morgan Stanley.

David Schwartz
CEO, Chairman and Co-founder, **Waterton Associates**
David is responsible for strategic decisions and leadership of the firm's business activities and operations, and participates on the Management and Investment Committees. Prior to co-founding Waterton in 1995, he was a vice president of acquisitions for Equity Residential Properties Trust (EQR-NYSE) and from 1985 through 1989 was with AMLI Realty Co. He is a member of the executive committee, a senior officer and chairman of the National Multi Housing Council (NMHC). He is a member of the Urban Land Institute (ULI) and the Pension Real Estate Association (PREA).

Bill Ferguson, Ferguson Partners: Let's start at a strategic level. What are the key strategic opportunities and concerns occurring in the industry and within your individual firms that you spend most time on? What issues will impact how you look at the future leadership of your firms?

Amy Price, BentallGreenOak: For me, it starts with defining our competitive positioning in the wake of consolidation in the industry. Asking ourselves who are we today, where are we going and how does that fit into our industry landscape. The industry is far more sophisticated, complex and competitive than it was even a decade ago. To be a global diversified investment management company, we need to have deep and local expertise across several major regions of the world, and we need to invest across the risk spectrum. Within that, it's about defining our point of distinction and how do we fit in that spectrum.

Next, we are focused on becoming a more sustainable business with more sustainable buildings in an industry that is awakening to the responsibility it bears to reduce its overall carbon footprint. What's going to change dramatically in the next five to 10 years is the impact that public policy has on private priorities. We need to have more efficient and innovative buildings that enable us to move toward carbon neutrality. Increasingly, the tenant voice is adding to the imperative in this shift towards greater sustainability and that market force directly impacts how we evaluate and manage our assets for a resilient and successful future.

My third concept is attracting young talent. Real estate investment management has matured as an industry, but how do we introduce it more widely? That obviously dovetails into how we build an inclusive industry that attracts younger talent who are a reflection of the cities of tomorrow. Our buildings cannot find their place in that future if fresh, diverse thinking and management acumen are not powering the decisions we make as a firm.

David Schwartz, Waterton Associates: The strategic issue our industry and all industries are facing is the future of work. We all agree being together is important, but people like working from home too. Figuring out that balance and what that future looks like is an immediate strategic priority.

For our industry in particular, the regulatory environment around the government's role and social justice as it pertains to raising rents and evictions is a big factor. To add onto that, diversity, equity and inclusion is top of mind. We're going to have to be diverse to be successful, because a lot of our customers, whether it's our investors or residents, are equally diverse, and so our companies need to reflect that.

As Amy said, attracting and retaining talent is connected to culture. Culture was not a huge driver when I started in the industry 30 years ago; compensation and other things were. Now quality of life is a big deal. We constantly have to adapt strategically to attract and retain talent.

Molly Bordonaro, The Green Cities Company: It was never our intention, but we rebranded The Green Cities Company during the pandemic. Two weeks before shutdown, we bought out our retired partners and went through a rebranding process focusing on mission, vision, values and culture.

But picking up on what David said, we have been focused on culture. We have looked at who makes decisions within the firm and how are they made, especially when they impact people's personal lives.

At the same time, employees are radically changing what they want. The pandemic accelerated things where employees for the first time are saying, "I have a say in my life and my lifestyle, and if you don't meet that, I'm going to go somewhere else."

Through our process, we've had some turnover which was positive because they weren't meeting the new culture where we were going. We've also engaged with our employees and had some really frank and sometimes hard discussions about their role in how and when they're able to make decisions, and

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> “ Attracting and retaining talent is connected to culture. Culture was not a huge driver when I started in the industry 30 years ago; compensation and other things were. Now quality of life is a big deal. We constantly have to adapt strategically to attract and retain talent. ”

who makes them. Employees have been asking for greater transparency and equity in the firm’s decision-making.

Molly, what have been some of those challenging discussions?

MB: We asked our employees, in particular our next generation of leadership: “What are we doing right as leaders and what have we not done right?” Hearing what we haven’t done right has been hard to absorb. But it’s also been really interesting. Ultimately my partners and I cannot become better leaders unless we hear those things and take them in. We don’t have to agree with all of them, but we owe it to them to explain where we don’t agree.

BF: Dave, you normally don’t hear this much human capital chatter when you ask people about strategic issues. It’s a powerful message in and of itself. How would you answer the question about both strategic opportunities and strategic concerns?

Dave Kutayiah, Clarion Partners: Human capital should always be a strategic priority for organizations, especially in this highly competitive, talent-driven market. In my view, there are two key differentiators in the REIM industry: people and processes. One of the biggest human capital challenges we’re facing as an industry, and have been focusing on at Clarion Partners, is a generational shift. Nearly 50% of the world’s population is under the age of 35. This means that we have a lot of challenges ahead in terms of how we focus on knowledge transfer for the next generations ahead. How do we equip and develop our bench to take the helm?

The second challenge is balancing the need for remote work and flexibility in the workplace while supporting our value proposition of physical space as commercial real estate owners. Covid-19 has forced remote work on a mass scale and has shattered one of the most durable notions of the workplace: “It’s hard to trust employees to do their jobs if you can’t see them.” How do we sell physical space, satisfy our employees’ desire for flexibility, and ensure that our clients are attended to as well? To succeed in this new operational paradigm, we need to understand the business case for change, assess the expected employee experience (i.e. will it require a shift in both mindset and skill set?), and create organizational enablement (i.e. adopt new and better ways of working).

The third one I would say is diversity, equity and inclusion. How do we continue to foster a diverse and inclusive environment and create challenging and satisfying opportunities for women and people of color, especially when most of the focus in the last year has been on navigating the vagaries of Covid-19? We have to remain steadfast in our

> "Good leaders tend to step back and say, 'How can I take your advice? How can I take your judgment? How can I do it differently than my own preconceived notions?' The great leaders are very flexible in their mindset. Great leaders also create the right conditions for success."

pursuit to create a more inclusive and equitable environment for all of our employees, and to establish meaningful goals and hold ourselves accountable for them.

DEFINING GREAT LEADERSHIP

There's no one definition or playbook as to how you become a successful CEO or a successful leader. For all of you, what is great leadership?

DK: That's a question I've been actively thinking about since I started my HR career, but most recently during Covid as people are defined by how they behave and how they respond in times of change and volatility. That's when you see true character and, dare I say, leadership. When I think of good leadership, I think of our CEO, Dave Gilbert, who makes people around him better. I think this is an essential quality for a successful leader. One, your team is either inspired to do better because they respect you and want to do well for you, or two, you help make them better because you create the right set of challenges to ensure that they can succeed.

I also think that great leaders recognize that your company's ecosystem is far more complex and interdependent than your own personal style and preferences. There are so many leaders who are so autocratic and didactic in their approaches that they feel like everyone should coalesce around their particular style. Good leaders tend to step back and say, "How can I take your advice? How can I take your judgment? How can I do it differently than my own preconceived notions?" The great leaders are very flexible in their mindset. Great leaders also create the right conditions for success. They create the context, they give you the tools and they give you the opportunities to go be successful. A good test is, can they unify their teams and energize the organization to achieve desired outcomes?

In terms of future leaders, we are seeing some emerging trends among Millennials and Gen Z. They are a lot more purpose-driven than other generational cohorts. They think about the greater good. I heard a really interesting term recently, the three Ps. Purpose-driven leaders are now focusing on three things: profit, people and planet. They call it a triple bottom line as they recognize the interconnectivity among the three. They seemingly care about all three pillars of ESG as well as the bottom line.

AP: I think it's more important than ever that leaders have a vision and can articulate their firm's mission and purpose in a way that connects to a greater community impact and motivates people. Younger generations in particular want to be part of a solution. They want to drive change and they want to work in a place that creates avenues and openings for them to participate in and practice good corporate citizenship. At the same time, it's got to be authentic and connected to action; strong leaders ensure we walk the talk. Take sustainability as an example; if that's part of your mission, then how is ESG actually incorporated into your investment evaluation criteria? How is it celebrated? What mechanisms are in place to reward ESG performance and how are employees pegging their professional goals and objectives to ESG outcomes? We challenge ourselves all the time with these questions to ensure that ESG as a firm value runs deep and prevalent in all that we do.

The experience of managing through a global pandemic has taught us a lot about leadership. It's shone a spotlight on the importance of compassion, visibility, communication and empathy. In a world of disruption and change, transparency gives people a lot of comfort and builds vital, virtual bridges in a time when physical touchpoints have not been possible.

Finally, it's really important to identify and develop talent in your organization who will be good leaders in the future. As an industry, we have historically promoted and rewarded good investors. They are still mission critical, but we must evolve our definition of leadership to extend beyond traditional metrics to include a wider array of skills that are crucial for our fast-paced, technology-driven world. We are living in the information age where personal and business interactions are taking place on new platforms and mediums. As an industry, we need both investment acumen and the new, soft skills that are redefining what it means to be connected to the communities that drive our business.

MB: I agree wholeheartedly with everything Dave and Amy said. Leadership to me is really understanding, and that requires a lot of listening, building trust, and then from there developing clear strategies or paths with buy-in. Right now I'm focused on understanding and listening to our internal employees and building trust with them. You do that in many small moments, not just in big ones.

“Leadership to me is really understanding, and that requires a lot of listening, building trust, and then from there developing clear strategies or paths with buy-in. Right now I'm focused on understanding and listening to our internal employees and building trust with them.”

DS: If I were to sum up a few things that I think are critical, one is picking some north stars, not get overly bogged down on details, but at a high altitude pick some important things that you don't want the company to deviate from. To me that has always been integrity, always doing the right thing and not deviating from that, even if it's not in our financial interest. Another one with me is a culture of nice and being respectful to each other.

I think authentically caring about the people you work with is really important. There was a time CEOs could get away without doing that, but it doesn't fly anymore. You need emotional intelligence, and that's authenticity, understanding, knowing if something's wrong with someone and seeing how they're doing. But people want to win too. If you're not winning anything, you're not going to be able to keep talent.

DK: I wanted to add one more thing to what David said. As you grow and you expand your business, you have to hire or surround yourself with people you trust as CEO and ensure that they'll have the right skills, the right expertise and the right judgment, and allow them to be autonomous. You want to surround yourself with people who you can say: “You've got my back and I won't ever have to worry about staying up at night thinking about X, Y and Z.” Your folks should always be three steps ahead of you and be able to anticipate what you need, how you need it and be able to deliver with precise execution. I think that helps most CEOs.

WHERE WILL FUTURE CEOs COME FROM

As we look to the next 10 to 20 years, will we start to see non-transaction executives have a route to the C-suite, particularly the CEO position?

MB: As a woman, I grew up in this industry thinking leaders come from the deal side. I've come around to the idea that I can't do any of this without an amazing team. They are valuable, they need to trust me and I need to trust them, and we need to have buy-in across the board. It really has to come from a more organic, holistic source within our own team.

DS: I'll bring a different perspective because I'm a founder and I've taken the traditional route. I don't think it's definitely from the deal side. If I had to hire a CEO, I probably wouldn't hire someone like myself, but I would hire me to go out and find deals or help raise capital. You see a lot of those types of leaders in place because they were entrepreneurial and started their companies. I've been forced personally to learn a lot of skills.

I think in the investment management space, the main customer is your investors. If your business is investing, the CEO should be proficient and respected with a track record of doing that over their career. Would a CFO migrate into the CEO position? We see that in public companies because they're talking to shareholders. You don't see it as much in the investment management space. You could have investor relations people who migrate into the CEO role because they've already had the decades of experience interacting with the investors. I think in today's world it would be more acceptable than if it were coming from a different area than acquisitions.

DK: There's such a strong bias for deal people in our business that we often get blinded by the other talents who are peripheral to the deal process. I have more command of the human capital space, but based on my experience in real estate, we do two things: we raise capital and we invest capital. So why not look at the people who raise capital or from other disciplines as potential candidates? Why limit your pool to just investors? Investors can coach and go find the deal. Similarly, the capital raisers can do the same because they know the client.

We have to be a little more open-minded. In the securities business, a lot of CEOs come through the distribution arm or the COO or CFO function. We probably need to be more flexible in our thinking about where talent comes from, and it shouldn't always exclusively come from the CIO role, or the transactions group, or lead acquisition personnel. It can come from somewhere else. Obviously, there's a high correlation between direct investment experience and investment credibility, but we should think of talent management more holistically and provide the right skills and opportunities for emerging talents to be successful when they're promoted into greater positions of responsibility and accountability.

AP: One-trick ponies are relics from a bygone era in business management. Our industry asks a lot of its leaders and rightfully so. As professionals at BGO elevate to increasing levels of leadership, we expect them to fundamentally understand what it means to be client-centric and, equally, we expect them to understand the markets we invest in and the socioeconomic factors that inform and impact the delivery of our strategies. It is my fervent belief that being multifaceted in our business and across a wide variety of stakeholder groups enriches our leaders with the perspective to exercise sound judgment and make better-informed decisions. I wouldn't look decades into the future for this new leadership mold to take shape, it's already present today and in very high demand.

“The quality, the knowledge, the professionalism of the C-suite clearly has become much more balanced than it ever was. You're going to get people coming from different disciplines.”

BF: A couple of observations from my perspective. I think to David's point, the skill set of a founder is different to the skill set of the next generation. Founders tend to be very entrepreneurial, they tend to be action-oriented, they tend to be controlling, and they tend to work the hours it takes to get it done. And once a company gets to a certain size, a different skill set is required. I think skill sets differ depending upon where a company is in its evolution, so I would make that point first.

Secondly, on where succession comes from, historically it has been the investment side in the real estate investment management business, but many more functions across the C-suite have become much more sophisticated. You bring capital raisers into the room with an investor and they are as sophisticated as anybody else on that C-suite. The quality, the knowledge, the professionalism of the C-suite clearly has become much more balanced than it ever was. You're going to get people coming from different disciplines.

And the last point I'd make, we started a leadership series called Masterminds: Lessons in Leadership, and we've interviewed probably 15 to 20 CEOs across a variety of sectors. To David's point, we asked them, “What drives success?” You know what we hear? We hear issues like integrity. We hear issues like humility. We hear issues like empathy. We hear issues like generosity. What that tells you is that these people differentiated themselves based upon who they are, not necessarily what they did. And that's a very powerful message. ◆

DATA *with a* global mission

For Bouwinvest, ESG data is an investment prerequisite and its global standardization an industry goal. **Nick Russell** *of Juniper Square speaks with* **Robert Wagenaar** *about how the Dutch international investor incorporates climate risk exposure into its portfolio management tools, has built an automated data warehouse platform and is arming its investment teams with Python skills.*

Robert Wagenaar is Head of Portfolio Operations & Transactions at Bouwinvest. Robert is responsible for directing the finance and operations activities for the global mandates of Bouwinvest, as well as coordinating and having active involvement in strategic planning.

Nick Russell is Head of Institutional Investor Account Management at Juniper Square. Nick partners with leading investors, managers and consultants in the commercial real estate industry to improve transparency and reduce the burden of reporting.

What is your investment mandate and how do your stakeholders affect the data and analytics you collect and analyze?

We are a specialized real estate investment manager in the Netherlands with a mandate to achieve sustainable returns on behalf of our clients, which are mainly pension funds and insurers. For our international mandates, our client is bpfBOUW, the pension fund for the Dutch construction industry.

We firmly believe that long-term financial success in real estate investments for our clients is inextricably linked with our social responsibilities. We incorporate ESG factors into all our investment decisions so we can better manage risks and generate long-term sustainable returns more effectively. Our reporting and transparency requirements are linked to financial and social KPIs. It is essential that they are in place before we invest with a manager.

What information are stakeholders requesting?

We are seeing more requests for asset-level information, such as financing and real estate metrics, as well as ESG data. Our institutional investors, as well as Dutch regulatory bodies, are also interested in topics like climate risk assessments. What we recently for example did in that respect was to plot the locations of all the assets, both from our listed and unlisted investments, on climate maps to see how exposed the assets

> The next challenge as an industry is to further standardize ESG data at the asset, portfolio and corporate level across regions to create more transparency and understanding.

are to certain climate risks like flooding. We want to make those assessments comparable across our portfolio, in the Asia Pacific region, Europe and the United States. We're looking for standardized and consistent information, but that can be quite challenging in real estate.

How successful have you been in collecting the necessary data to meet your stakeholder needs, especially as these continue to evolve?

The managers with whom we have long-term relationships are mostly willing to provide us with the information we need. Furthermore, most of the reporting requirements that are important to us, such as compliance with industry standards such as INREV or GRESB, are agreed upfront.

Why is having ESG information important to you?

Standardized ESG reporting remains a challenge. Reporting on social and governance in particular is more difficult because they are less standardized. For example, we have targets on affordability, corporate governance, as well as construction site safety, since our client is the pension fund for the construction industry. It is difficult to come up with the right standardized reporting requirements applicable around the globe. Definitions of 'affordability' vary by country, depending on the makeup and regulations of the various real estate markets.

The adoption of technology has been a challenge for the real estate industry. How have you set up your technology platform and its focus on business intelligence and analytical tools?

Having the right and consistent data is key. When you don't have the right data, the outcomes are rubbish.

The next step is having the right tools to make data-driven decisions. What we've done at Bouwinvest is to build a data warehouse solution, which we use to combine the information from our unlisted and listed portfolios. The tool also includes all the market data we have. By doing this, we can combine the portfolio information with market data to measure performance against indices and conduct allocation studies.

We also invest in our employees. The mindset of our organization is to be data-driven and ahead of the game, which is why members of our investment teams have been developing Python skills to complement Excel. We have in-house data scientists and our research department has made a series of webinars with ANREV about how to implement a data and analytics strategy.

Can you name some new initiatives currently underway at your firm?

We are actively researching and contemplating launching new products such as an impact strategy. In the Netherlands, we are committed to ensuring that our property portfolios are carbon neutral and highly energy efficient to meet the objectives of the Paris Climate Agreement by 2045.

Our international mandates and team have grown significantly in size over the years. From a data and analytics perspective, we are working hard to further professionalize and take how we work and operate to the next level. We are focused on the continued improvement of data-driven and forward-looking portfolio management, enhancing client management, further improving our integrated mandate proposition and streamlining our operations.

An automated data approach helps to respond effectively to the scrutiny from clients, fiduciaries and regulatory bodies, and it really helps us facilitate up-to-date asset-level reporting. As we have become a larger investor in both closed-end and open-ended funds, and also participated in more joint ventures and club deals, we have had to operate differently and become more active on the investor side.

The next challenge as an industry is to further standardize ESG data at the asset, portfolio and corporate level across regions to create more transparency and understanding. Building certificates, for example, are different in every country, which makes them hard to compare. We'll have to take the step towards standardization in the industry over the next few years. ◆

Pillars of SUCCESSFUL residential investing

Strong structurally supportive market dynamics and evolving socio-demographics, coupled with an expanding, more discerning occupier base will revolutionise existing living offerings and lead to an expansion in new concepts. Nuveen's creation of a living model fit for the future rests on five pillars.

By Michael Keogh,
Nuveen Real Estate

There has never been more debate, in both the mainstream media and within the real estate community, regarding the future demand, design and development of all forms of the residential sector, given changes in business and consumer behavior coupled with demand from changing socio-demographic, environmental and technological advances. It is our belief that the strong tailwinds that support the living sector over the long term remain intact. Furthermore, the growing importance of consumer-focused operational management and embedding technology and sustainability in the design will also lead to an evolution of new residential thinking.

At Nuveen, we believe in five pillars that will principally shape the sector's future, and also determine its evolution from a consumer and an investor perspective (see Exhibit 1).

1 Exhibiting user-centric focus

Rapid urbanization, a failure of supply to accommodate changing demand, growing affordability concerns, embedded socio-demographic change and the globalization of education have been at the forefront of the expansion of different forms of living. Sadly, one could argue much of the residential rental product that exists today has failed to move beyond the primary purposes of shelter and security, with little emphasis on future operational commitments.

There is a clear need to improve the traditional consumer experience of mass-market renters via the professionalization of the leasing and property management process. And as the consumer base for rented accommodation grows, either by choice or necessity, those needs have evolved rapidly beyond an additional desire for flexibility into experience, community and personal well-being.

“What is undeniable is that residents expect more from property management, particularly if they are spending more time at home given increased remote working.”

Professionally managed living is at the forefront of the hospitality evolution present in rental living, with design, services and technology all embodied to focus on the consumer and improve the living experience. As such, a strong, experienced and modern operator is fundamental to a well-managed residential concept. This evolution is very apparent in land-scarce cities, such as Hong Kong and Singapore, beset by price and rental affordability.

In the past, multifamily products were non-existent save for the serviced apartments. Increasingly, institutional investors are now stepping in to close the gap by providing multifamily and co-living concepts in these markets, thereby broadening the choices afforded to consumers.

What is undeniable is that residents expect more from property management, particularly if they are spending more time at home given increased remote working. Additional layers of service,

Exhibit 1: The five pillars of Nuveen's living strategy

1. User centric	2. Product driven	3. Multi-stakeholder approach	4. Technology and innovation	5. Sustainability
• Improving the consumer experience of mass market rentals, via the professionalization of the leasing and property management process	• Addressing the fundamental needs of the consumer • Asset management initiatives to drive additional value for the consumer and investor	• A living concept that serves the needs of all stakeholders — landlords, consumers, investors, borrowers and society	• Utilizing technology to streamline and industrialize the acquisition and asset management process	• Constructing assets embedded within local communities • Improving quality and energy efficiency of legacy and new living products via strategic capex and intelligent asset management

Source: Nuveen Real Estate.

whether in-house or through a third party, beyond the importance of cleanliness and reliability, will be key in both attracting and retaining residents.

2 Being product driven

There are many well-documented driving forces behind the present living challenge (see Exhibit 2). Success will come from understanding them, channeling concepts fit for tomorrow's world and incorporating change where needed, without losing focus on the consumer need. At Nuveen, our global cities philosophy still resonates within housing: a preference remains for a scalable concept and a growing target audience in innovative, connected, regulatory-friendly markets with strong quality of life indicators. It is our belief that people still want to be close to like-minded people, cultural attractions and entertainment. But we recognize the reignition of the working from home debate and a greater focus on well-being will influence the urbanization trend that has been the prominent driver of market conditions for a generation.

Interestingly, net migration into the central urban areas across some of the major US cities (New York, Chicago, Los Angeles, Washington DC, Seattle) was not only negative in 2020, but is forecasted to remain so in 2021. However, net migration into suburban areas was positive across all major metropolitan districts in 2020 and is projected to remain positive in 2021. Again, this is not necessarily a new concept, especially in gateway cities. Couples and families migrate from central locations, largely due to greater space requirements and associated affordability, or crave changes in their work-life balance.

That said, it would not be surprising if a decentralization of the office sector and an increased focus on quality of life and social cohesion lead to a bigger cohort that demands suburban housing in less densely populated areas, or in satellite towns with greater space linked to major cities via strong infrastructure. It seems logical that workers spending more time at home would rethink the size and location of their dwellings.

Traffic jams and packed trains are more bearable when encountered only a couple of times per week. The rental market and those niche sub-sectors, such as micro-living and co-living that have a greater focus on a centralized location model, will need to address this space versus amenity versus location conundrum. Whether this 'phase' is an enduring trend will shape not only the performance of existing living rental accommodation, but influence the design, location and offering of future living products.

Design is now just as important as location and affordability. Good design ensures that the appropriate unit mix

Exhibit 2: Nine megatrends shaping the future of living

Urbanisation	Millennial population size	Gen rent
Future of work	Household formation	Getting married later
Affordability	Value experiences & community	Sharing economy

Source: Nuveen Real Estate.

Case study: Who wants a corridor in a 40 sqm (430 sq ft) apartment?

Stay, our Spanish residential rental brand, merges architecture, design, functionality and affordability to offer a fresh alternative to the increasingly obsolete layout of a traditional apartment. Typically, Spanish apartments have a corridor separating the daytime rooms (the living room and kitchen) with the nighttime rooms (the bedrooms and bathrooms). Although common for family homes, this type of layout is inefficient in its use of space, especially with the prospect of increased working from home.

Stay enables greater living space and consumer comfort by maximizing usable spaces at the expense of reducing hallways and corridors, as well as giving access to common areas such as a gym and swimming pool, with co-working and well-being zones. Alongside commitments to sustainability, via BREEAM certifications and technology, through the digitalization of the rental and management process, Stay is unique in the Spanish market.

and amenity provision reflects the local, target demographic, as well as the delivery of best-in-class standards of sustainability, well-being and accessibility. And as consumer demands change and evolve, it is essential that design stays relevant. Better understanding can come from effective data gathering and analysis, to constantly improve the product offering.

3 Multi-stakeholder approach to value creation

A living concept that serves the needs of all stakeholders — landlords, consumers, investors, borrowers and the society at large — will become the winning formula of the future. And nowhere is the concept of a housing lifecycle as apparent as it is in Tokyo, the world's biggest metropolitan city. While the nationwide population is declining as birth rates continue to fall, Tokyo (and other major regional capital cities) continues to attract people in search of jobs, proximity to amenities and better quality of life. Declining household size and increasing household numbers in turn underpin the demographic tailwinds of housing as an asset class, across co-living, multifamily, single-family housing and retirement living.

The nature of demand is also evolving and broadening. Historically, space requirements were centered on smaller-sized apartments within the central wards, but demand for large-sized apartments has risen, most noticeably in suburban areas with cheaper rents. Beyond the traditional housing space, an aging population also demands more specialized medical support, retirement care and living.

There is an immense opportunity to create impact and value to support the ongoing evolution of living styles and needs across many cities globally. Demographic and lifestyle changes continue to demand improvement in facilities and operational upgrades, professional management and more value-add services. To evolve as an institutional-grade asset class, residential property is going to require greater mutual understanding and closer co-operation between governments, investors and developers. If governments want to see an increase in institutional investment, then some changes to public policy may be required. Ensuring a viable, stable regulatory and tax regime to give investors confidence to support the sector for the long term is vital in the success of this asset class. Successful institutions should look to partner with best-in-class local operators with stock and management expertise in the residential sector.

4 Technology and innovation

At Nuveen, we see technology as a positive disruptor and enabler of change. Such is the transformation envisaged within the housing industry; there is an essential need to incorporate more technology into the sector, whether from an acquisition, operation and asset management, resident or developer perspective. Now, more than ever, we see the additional value of innovation.

Managers that already had a strong technology strategy in place have been able to disseminate regular, up-to-date information and support to their customers, while driving greater efficiencies. Managers that have the ability to provide virtual tours, or to track and respond to online leads have been able to proceed closer to business as normal and indeed steal the march from those with more traditional platforms. As demand in this area grows and as tenants become accustomed to this 'alternative' service, we are likely to see an improvement in the quality and depth of technology's role in the sector, and a consolidation of a few winning operational platforms.

Within design, it is believed that changes in social norms and attitudes will increase the use of automation in

Case study: Tech-enabled urban co-living in Fort Lauderdale

Our co-living strategy in Florida is based on a new approach to the existing apartment product, the rental market and its operations. Firstly, we see this as a way to create affordability and convenience in urban markets by leasing a component of the asset's unit mix by the bed. Leasing by the bed offers a 25% to 30% discount to existing studios in the Class A apartment submarket, allowing us to reach the largest segment of the residential demand. Secondly, by relying on a branded and data-driven approach to leasing, we have been able to lease the co-living component during the pandemic. At the operations level, we see centralized services and technology as facilitators of property management activities, as well as the repairs and maintenance processes.

At Nuveen, we believe the future of residential operations will incorporate, among others, design, density, branding, centralized services, data and technology. This approach employs many of the key aspects of the hospitality industry to apartment daily operations.

greater allocations for public spaces, and potentially the physical layout of a building. The incorporation of smart tech, including touchless solutions and the ability to interact digitally with the building through mobile devices, will likely be appreciated and expected by residents. It must, therefore, strike the right balance between frictionless automation and people-centered hospitality.

Given the competitive environment and need for additional alpha, investors and developers will be looking for more informed micro-level analysis aligned to changes in consumer needs, to underwrite opportunities. There will be more emphasis on data-driven locational, asset and liquidity market intelligence, arguably a shift away from more traditional metrics.

5 Sustainability

To meet the objectives of the Paris Accord, all buildings will need to be net zero carbon by 2050. At Nuveen Real Estate, we are aiming to achieve net zero carbon in our real estate portfolio no later than 2040. To succeed in this ambitious goal, it is essential that our investment decision-making is informed by an in-depth knowledge of how the transition to the low-carbon economy will impact real estate.

This poses a complex set of investment risks and opportunities for the living sector — the sector with the most need of improvement — which will have to be anticipated, evaluated and addressed. Essential to our clients' investments and our fiduciary duty, we have developed a robust methodology for the assessment of our real estate assets under management globally, taking account of local, asset-specific circumstances. This will not only mean that we are able to manage transition risks more effectively, but it will also position us to unlock the value arbitrage that we expect to realize from net zero carbon buildings.

We acknowledge the full responsibilities within the environmental, social and governance aspects of real estate investment management. There is an environmental commitment to work with partners and customers to target best-in-class environmental credentials across our whole portfolio, while incorporating thoughtful approaches to operational efficiency, including the integration of smart building technology to optimize energy efficiencies. From a social and governance perspective, in the less-established residential rental

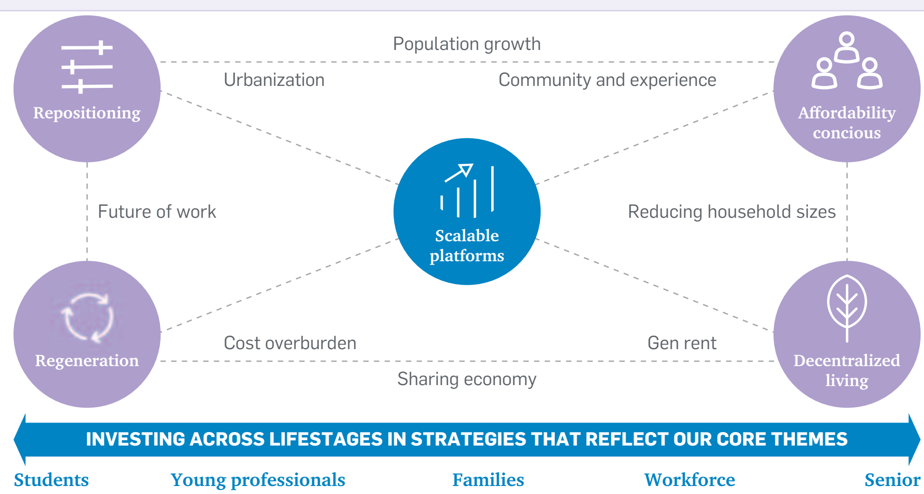
Case study: Rewarded for our sustainability vision in Portugal

Our commitment to sustainability was recognized by our Porto Asprela development in Portugal, which achieved the highest score in Europe in the LEED V4 Hospitality category for PBSA (purpose-built student accommodation), as well as a LEED Gold certification for our wider student housing portfolio in Portugal in 2020. The certification reflects the inclusion of solar panels, automated metering, heating and cooling systems, optimum building insulation, LED lighting and smart-building tech, all of which enable us to achieve high environmental quality.

Nuveen also requires property management to implement environmental and social initiatives that support tenant retention, cost reductions and regulatory compliance. Tenant behavior is a key component to enable environmental performance. An active tenant engagement program incorporating sustainable themes alongside organized educational events raises awareness of our joint sustainability goals.

Exhibit 3: Market and megatrend context

Responding to a changing macroenvironment, underpinned by long-term global megatrends across Europe



Source: Nuveen Real Estate.

markets, the experience of tenants is notoriously poor. There is a lack of security of tenure and flexibility offered to tenants, particularly in pro-landlord regulatory markets.

Our residential approach is to provide a superior offering built around key elements, such as affordability, security of tenure, transparency and customer service, with scope to enhance social engagement and support functioning networks and infrastructure. We believe an increase in a sense of community and well-being is something tenants will both value and expect going forward. An approach that can create resident connection before, during or even after work will also become increasingly important as technology can remove human interaction from daily routine. Residential buildings that can operate to nurture relationships are more likely to be successful as people need human interaction.

Conclusion

At Nuveen, our investment, asset management and corporate strategies stem and grow from a deep understanding of the structural trends of demographics, sustainability and technology that we believe will shape the future of real estate beyond market cycles (see Exhibit 3). It is our belief there is a real opportunity to be part of the institutionalization of the residential sector.

Our approach combines in-depth knowledge of local demand-and-supply dynamics, market and regulatory characteristics and expected returns with a list of priority economies and markets identified for different forms of housing. This forms Nuveen's global strategy to expand in traditional multi- and single-family housing, student accommodation, co-living and retirement living. ◆

Michael Keogh is Director of Research, Strategic Insights at Nuveen Real Estate.

Assessing climate-related risk & resiliency

The reality of extreme weather events requires a proactive approach to quantifying and mitigating risk, with resilience strategies identified during due diligence and implemented upon acquisition.

By Dorit Ziv, Partner Energy, and Justin Lia and Gary Cohn, Partner Engineering and Science

Hurricanes on the East Coast. Wildfires in the West. Record temperatures and consecutive storm events throughout the country. Extreme weather events each year result in billions of dollars of damage and even deaths. The Federal Reserve Board of Governors noted in March 2021 that climate change can result in "direct financial risks, prompting a reassessment of asset values, changing the cost or availability of credit, or affecting the timing or reliability of cash flows."[1]

Regardless of market, commercial real estate owners and investors face growing risk from climate-related events and extreme weather. They must understand and quantify asset and portfolio exposure to climate-related risk and evaluate and adopt mitigation strategies to address it. The best time to begin this process is during pre-acquisition due diligence, when climate risk data can be used to improve capital planning, building resiliency and long-term positioning.

Accurate assessments, actionable data

Climate risk assessments (also known as resiliency assessments) are gaining traction in the commercial real estate community. Many providers rely on geographic data, such as national and local weather databases, flood maps and spaghetti models that combine AI with machine learning and other historic metrics to understand a property's exposure to risks from climate change and natural disasters. Unfortunately, this generalized, regional type of assessment often paints an incomplete picture.

To accurately evaluate the resiliency of a property — that is, its ability to withstand and resume normal functions after an extreme weather event — it is imperative to marry geographic data (as above) with site-specific data. An on-site assessment can identify building characteristics that will affect performance during climate events. For example, a property may not be in a

[1] Federal Reserve Board of Governors, Climate Change and Financial Stability, March 19, 2021.

flood zone according to regional flood maps, but a site assessment will reveal water damage consistent with flooding; perhaps that flood plain is protected by a levee that has been documented as suspect, or a stormwater system is long past its expected useful life.

A recent assessment of a New Jersey warehouse revealed the opposite scenario: a database review located the property in a flood zone, but the development of this particular site provided enough elevation to protect structures — so no costly mitigation measures were required. A look at the local watershed and supporting stormwater system will convey valuable information that would be overlooked if the assessment relied only on the FEMA Flood Insurance Rate Map (FIRM) panel number.

Because site-specific data is critical to accurately assess a property's climate risk exposure, the ideal time to perform a climate risk/resiliency assessment is prior to acquisition, during the property condition assessment (PCA). PCA and specialty assessors will already be on-site, gathering building data. Adjusting the scope of the PCA to include climate risk and resiliency observations saves time and money and minimizes disruption to building occupiers. For acquisitions in areas with known climate risk such as localized flooding or wildfire issues, combining a resiliency assessment with a PCA can also result in a more accurate valuation, as standard due diligence could fail to capture climate risk factors that could be detrimental to asset value.

In addition, assessing climate risk before acquisition allows for early identification and implementation of low-cost mitigation strategies. In some cases, simple and inexpensive measures can offset significant risk. Take, for example, rooftop equipment on buildings located in the Southeastern US, where hurricane risk is great. Hurricane damage to rooftop equipment is costly, but the greater exposure is liability for equipment blown off the roof during a storm. Installing a $100 strap on rooftop equipment of these buildings greatly reduces the risk for what could easily be hundreds of thousands of dollars in liability. For properties with high fire risk, installing ember guards in attic and eave vents is another low-cost measure that can have an outsized value in preventing fire damage. Early resiliency planning also allows for a phased approach, such as the relocation of mechanical equipment to a higher elevation. With the foresight of PCA data, the relocation of mechanical equipment that is slated for replacement can be done at the end of its expected useful life with minimal increases to capital expenditure.

> “Because site-specific data is critical to accurately assess a property's climate risk exposure, the ideal time to perform a climate risk/resiliency assessment is prior to acquisition, during the property condition assessment (PCA).”

In cases where climate risk exposure warrants capital outlay to mitigate risk, assessing climate risk during the PCA allows investors to incorporate mitigation into their capital plan. The standard scope of a PCA provides a 'like-for-like' approach to replacement reserves. In other words, if an HVAC unit will require replacement during the term addressed by the PCA, the replacement reserve table in a standard PCA will reflect the cost of replacing it with a similar system. However, for the acquisition of an office or multifamily property in the Southwestern US where average annual temperatures are rising, it would make sense to upgrade the HVAC system at the end of its useful life to one that can accommodate hotter temperatures and is more efficient than the unit it replaced. A PCA that incorporates climate risk assessment can capture measures such as these in the capital planning table.

Beyond immediate risk mitigation and improved capital planning, there is another argument for assessing resiliency during the PCA: marketing. Investors are increasingly concerned with sustainability and ESG metrics. Because resiliency planning makes buildings greener and safer, adding a resiliency review to the PCA can improve a property's GRESB score, an ESG benchmark for commercial real estate assets. By gathering climate risk data during pre-acquisition due diligence, portfolio managers can fine-tune properties as they onboard them, keeping their whole portfolio green.

How much can we know? How well can we prepare?

Climate risk assessments are a bit like medical diagnostics: they can be used for prognosis but are much more valuable when they change the course of treatment. Knowing the rate of sea level rise or temperature change is only useful if it triggers a change in strategy.

Climate risk/resiliency assessments

Whether as a stand-alone service or in the context of a comprehensive property condition assessment, climate risk/resiliency assessments evaluate the ability of a facility to withstand and recover from the impacts of external forces such as natural disasters and extreme weather events.

During the assessment, a qualified consultant will utilize the property's historical data and regional climate data to identify risks from climate change, natural disasters and man-made impacts. They will also perform an on-site evaluation of site-specific characteristics that affect the building's performance in the context of these risks. Then, considering the specific client's risk tolerance and investment objective, the consultant will issue a report containing an inventory of potential risks, list of property specific recommendations for risk mitigation measures, and cost and savings calculations.

Below are examples of factors that may be identified during a climate risk/resiliency assessment along with examples of typical mitigation measures for each.

Risk factor	Mitigation measure example
High winds	• Install fasteners on all rooftop equipment to prevent lift during high winds. • Replace windows with impact resistant glass.
Wildfire	• Remove dead and dry plant material from site. Install wildfire control lines (vegetation clearings). • Install a wildfire defense system (may include water tanks and/or fire suppression foam/gels).
Hail	• Install hail guard on rooftop HVAC equipment to prevent hail damage.
Precipitation and storms	• Install risers to lift mechanical equipment a minimum of 18 inches above grade, preventing water inundation in a flooding situation. • Regrade parking area to provide a minimum of 2% slope away from building foundation. • Upsize catch basins and stormwater drainage system to accommodate 15% to 30% more storm water volume.
Sea-level rise	• Install permanent flooding barriers at perimeter of site to surge waters. • Stockpile additional temporary water barriers, such as concrete barriers and/or sandbags for acute flooding events. • Relocate energy generators and mechanical equipment from basement to above grade location.
Earthquake	• For buildings with tuck-under car ports, complete seismic assessment to determine ability to withstand earthquake; seismic retrofitting may be necessary.
Air quality	• Install minimum MERV 14 air filters and/or HEPA filters. • Install UV-C duct/air disinfection system, increase outside air exchange rate.
Extreme temperatures	• Complete energy efficiency audit and retro commissioning to identify opportunities to reduce energy demand and mitigate peak demand. • Install cool roof. • Install building automation system (BAS) and optimize sequence of operations. • Topcoat parking lot with high solar reflectance index (SRI)/light-colored coating to reduce heat island effect.

Source: Partner Energy.

Pragmatic real estate investors don't want doomsday scenarios; they want data to inform planning. Climate science, however, is a relatively new field of study with limited data and almost unlimited variables: What can we predict, and with what degree of accuracy? We have seen the frequency of extreme weather events increasing in recent years and mainstream investors, along with their insurance companies, are noticing.

Unlike with PCAs and environmental site assessments, there is no ASTM standard for climate risk/resiliency assessments. Depending on the location of an asset, a climate risk assessment may incorporate any number of risk factors including hurricanes, fire, drought, volcanic activity, air quality, temperature change, wind events, flooding and sea level rise, earthquakes, precipitation/storms, and landslides. Scopes can be customized to incorporate anticipated hold times or individual risk tolerance. Some investors prefer to focus on factors that a resiliency assessment can identify with a degree of certainty. Others seek to understand their exposure in a broader range of possibilities. Generally, a resiliency assessment will present a range of scenarios (best, worst, moderate), along with mitigation options.

Rarely do the findings of a climate risk assessment make or break an acquisition; rather, the data allows would-be owners to explore scenarios and weigh risk against the cost of mitigation. Particularly for institutional portfolios, closed-end funds and other investments with long hold periods, emerging issues at the time of acquisition could become material concerns at disposition. Even those with shorter holds should consider climate impacts on systems with long lifespans, such as roofs or HVACs.

Occasionally, a climate risk assessment may identify factors significant enough to trigger a re-trade. One recent example of this occurred at a newly constructed resort in the Caribbean. The assessment identified windows that would not have tolerated the one-two punch of Hurricanes Irma and Maria, or the record-breaking winds of Hurricane Dorian. The buyer, citing business interruption/loss of revenue and market share as top concerns, demanded a $3 million price reduction.

Climate change data affects design decisions for new developments and for redevelopment projects. Advances in building materials and engineering can offer resiliency options that did not exist when a structure was originally built. Consider wildfires in the Western US. Just a few years ago, wildfire was a risk associated with remote or rural properties. Now, with California's widely recognized 'wildfire season,' concern for fire resiliency is prompting changes to building codes and research into fire-resistant building materials. A redevelopment project in a high fire risk location is likely to require 'building hardening' (using fire resistant materials) and incorporating 'defensible space' (a natural or landscaped area around a structure that is designed to reduce fire danger). It is worth noting that despite popular belief, most commercial properties on the West Coast are not high fire risk, so long as buildings are not surrounded by combustible material. However, even for buildings with low fire risk, air quality may be a concern if the asset is located in an area with frequent wildfires. Heat and smoke can affect the building envelope and create poor air quality for tenants.

Depending on risk tolerance and personal experience, property owners go to varying lengths to assess risk. Since Hurricane Katrina in 2005, many no longer find it adequate to assess flood risk by relying on FEMA maps. One institutional real estate management firm requires detailed studies of local levee and stormwater management systems, evaluating the projected impact of flooding not just at their sites but within the entire watershed area. Because standard modeling does not account for multiple days of rainfall, or how systems perform once they reach capacity, this firm requests advanced scenarios to understand worst-case loss liability and the impacts of the largest storm event to hit a specific area in the past.

" Savvy investors will use forward-looking data and technology to understand their exposure to climate change risk and position their properties for maximum resiliency. "

In evaluating mitigation strategies, property owners weigh cost, appearance and safety factors against the likelihood and potential impact of a climate event. For one hotelier in Miami, the value of beachfront property was worth the risk of sea-level rise and potential flooding, but not if mitigation strategies required compromising the ocean view. The solution: an underground wall that can be raised with the push of a button to block up to 30 inches of water. Another Florida hotel, facing the same risks, was designed to allow the ground floor to absorb flood water impact and break away while preserving the upper floors.

Learning from the past, looking to the future

Both building science and climate change data have dramatically advanced over the last few decades. Research on climate change has exploded since 1990, when global organizations brought widespread attention to the issue. The establishment of the US Green Building Council (USGBC) in 1993 brought about the LEED program and sustainability initiatives in the building industry. Until these developments, the architecture/engineering community had relied on the same climate data for decades.

Now, any significant acquisition is scrutinized by consultants, subconsultants and analysts armed not only with updated climate data, but technology such as infrared scans, LiDAR, electrical load surveys and drone imagery — modern due diligence offers insights that were impossible even ten years ago. As investors leverage these changes to see beyond the current state of a real estate asset and anticipate its future, climate change/resiliency assessments will become more commonplace, possibly even standard PCA scope. Savvy investors will use forward-looking data and technology to understand their exposure to climate change risk and position their properties for maximum resiliency. ◆

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Identifying winners in a **bifurcating** OFFICE sector

With return to office uncertainty lingering, how can investors be certain they've picked the winning pony right out of the gate?

iStock.com/treety

By Sabrina Unger and Britteni Lupe, American Realty Advisors

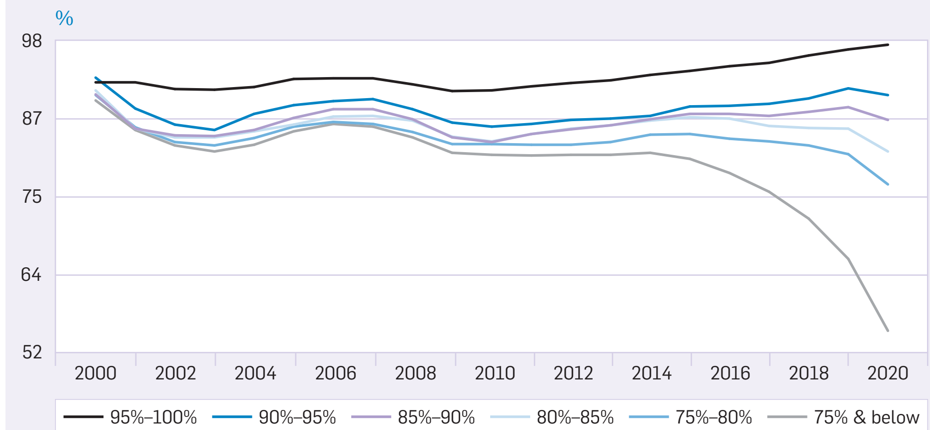
[1] NCREIF Fund Index — Open-end Diversified Core Equity Index (NFI-ODCE) average weights for one year through 1Q 2021.

Inboxes have been plagued in recent months with seemingly incompatible hypotheses surrounding the office sector. Surveys positing that the return to the office has been accelerated jostle for airtime against others claiming a meaningful number of employees would rather quit their current employer than return to the office. The truth, of course, is much more likely to be somewhere nearer the middle. And given investors' large allocations to office (the sector comprises a material 34% of ODCE funds' holdings[1]), there are millions of dollars at stake in translating the implications of these headlines successfully to one's own assets.

One of the ways investors have attempted to hedge themselves against deteriorating fundamental conditions or potential obsolescence in the past is by focusing on higher quality, Class A product. Yet with prospects for weaker demand in a hybrid work environment, there is a risk that this defense alone proves insufficient. As available supply outweighs demand, occupiers will have their pick of the litter — adding greater downside for the losers, yes, but creating greater upside potential for those buildings that are best positioned to capture a larger slice of what looks to be a smaller pie.

Given what we believe will be a narrowing subset of winners in office, the ability to identify these winners will be all the more critical to portfolio returns.

Exhibit 1: Office occupancy by current occupancy profile, 2000–2020



Source: American Realty Advisors based on data from CoStar as of June 2021.

Relative resilience of office occupancy

Newton's first law of motion states that an object in motion stays in motion with the same speed and in the same direction unless acted upon by an unbalanced force. But do these same rules of physics (loosely interpreted) apply to office buildings?

To answer this question, we set out to determine whether there is any consistency between current (hybrid work environment) and past (pre-Covid) occupancy. Put another way, we wanted to see whether buildings with low occupancy today have always had low occupancy, and whether those with high occupancy today have always been in higher demand.

At an aggregate level, we see that buildings that are 95%–100% leased today (shown in black in Exhibit 1) have maintained a persistently superior occupancy profile over the last 20 years despite perceived shifts in location, build-out and amenity preferences. The same is true at the bottom — those properties less than 75% occupied today (in gray) have seemingly always struggled, suggesting some combination of locational or physical inferiorities that have been insurmountable.

The pattern of the occupancy profiles' positions relative to one another over time seems to satisfy the first part of our take on Newton's law — that is, a well-occupied building stays well occupied and less-occupied buildings stay less occupied.

"Given what we believe will be a narrowing subset of winners in office, the ability to identify these winners will be all that more critical to portfolio returns."

Yet the widening dispersion between the sets indicates that there were forces changing the trajectory as early as 2014. In 2010, the gap between today's 95%–100% occupied subset and the 75%–80% occupied subset stood at 8%; by 2020, that gap had widened to 20.8%. Even if we characterize the steep occupancy falloff that occurred in 2020 as a function of the pandemic, the gap in 2019 was 15.6%, nearly double what it had been a decade before.

What this tells us is today's well-occupied buildings have had staying power; given this, investors should theoretically buy only those buildings that are well occupied today and forego others. But what commonalities exist, if any, in this best-in-class set such that investors can more easily 'know' if a potential new acquisition is positioned for durable occupancy?

When Class A isn't enough

Investors' concerns around the uncertainty in the office sector have historically been assuaged by the belief that many portfolios' office holdings are Class A assets. These assets are less exposed to broader sector weakness that is predominately concentrated in lower-class buildings. The data, however, suggests that class designation alone is not a silver bullet.

A sampling of markets across the US by current occupancy brackets reveals that a Class A designation is not necessarily synonymous with dominant occupancy. As shown in the tables in Exhibit 2, the proportionate share of Class A buildings in the most highly occupied category (calculated as the Class A share of 90%–100% occupied buildings over Class A buildings' share of all buildings in the data set) does not punch above its weight class in any of the sampling markets. In other words, if Class A was the decisive distinction between highly leased buildings and those buildings that are occupationally challenged, we would expect to see an overwhelming presence of Class A buildings in the 90%–100% occupied category. However, the data indicates that Class A product makes up only a proportionate share (+/–100%) of highly leased assets. More notably, Class C properties make up a far more overweighted proportion of highly leased product than might be intuitive — this is particularly true in Chicago, Seattle and Dallas-Fort Worth, where Class C buildings' proportionate share of the 90%–100% occupied category is at or above 120%.

In fact, where Class A product is disproportionately overrepresented is in the 80%–90% and 70%–80% leased buckets — not the lowest, but certainly not as compelling as one would hope. What we deduce is that Class A distinction alone cannot guarantee a building will be highly leased. But if class distinction is not the deciding factor on occupancy propensity, what (if any) indicators are?

Exhibit 2: Proportionate share of occupancy band by class designation (select markets)

Chicago

Building class	90%–100%	<70%
A	90.0%	109.0%
B	106.2%	96.6%
C	132.8%	59.8%

Seattle

Building class	90%–100%	<70%
A	104.8%	90.0%
B	91.4%	120.6%
C	119.3%	–

New York (Manhattan)

Building class	90%–100%	<70%
A	102.0%	101.3%
B	97.0%	101.9%
C	103.8%	90.7%

Dallas-Fort Worth

Building class	90%–100%	<70%
A	95.8%	88.8%
B	104.1%	117.6%
C	165.8%	107.9%

San Francisco

Building class	90%–100%	<70%
A	104.8%	74.8%
B	91.4%	130.9%
C	109.2%	246.8%

Why proportionate share?

Proportionate share reflects how much a certain category 'should' appear in the data set relative to its share of the denominator. If Class A buildings account for 30% of the entire market, they should account for 30% of the 90%–100% occupied subset (resulting in a proportionate share of 100%, or 1:1). A number above 100% signals a segment is overrepresented in the set relative to what the overall share suggests; below 100% means it is underrepresented compared to what its share would suggest.

Source: American Realty Advisors based on data from CoStar as of June 2021.

If not Class A, then what?

Let's assume, for the sake of argument, that investors today will *only* consider a Class A building, and thus is the minimum accepted starting point for asset selection. Reducing our potential universe of buildings to only those with a Class A designation, our next move is to determine, using the same proportionate approach, whether there might be other, more telling (and identifiable) attributes (such as vintage, floor size, amenities and location) that offer more conclusive indicators for success.

Perhaps surprisingly, there are few physical commonalities shared across the highly occupied cohort in New York,

[2] In the interest of maintaining a robust denominator, we combined our five sample markets.

[3] LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world. Certification recognizes environmental performance and energy efficiency at a level above national standards, as well as the presence of sustainable building features and management practices. Because LEED certification can be achieved either at the onset of new construction or upon substantial renovation, interior buildouts or improvements to building operations and management systems by new management ex post factor, it could be either structural or additive, hence its coloration in our occupancy bridge.

Dallas, Seattle, Chicago and San Francisco; in fact, we're left with just two qualifiers suggestive of a greater propensity for strong occupancy:

A. Were built after 2000; and

B. Had achieved LEED Certification or greater (which, one could argue can be added retroactively).

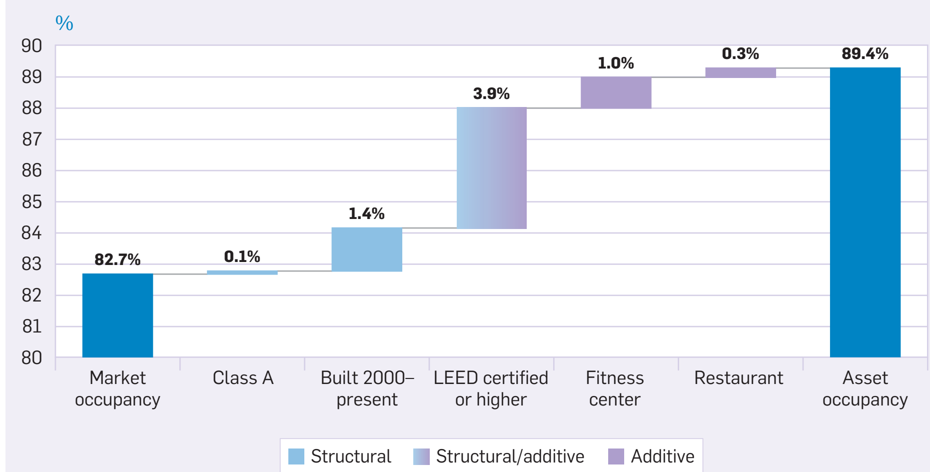
Our analysis also reveals that there are but a handful of additive elements (those amenities or offerings that can be programmed by new management) that are commonly found in the most highly occupied properties.

The problem with this checklist approach is that it treats each attribute in isolation, rather than considering what *combination* of factors leads to the greatest occupancy increase. What would be the effect of having all, or just some of these pieces to the puzzle present? Can investors forego one element in exchange for another and still arrive at a comparable occupancy?

To test this, we constructed an occupancy 'bridge' (see Exhibit 3), layering in the physical elements first (as those are the ones that are the most difficult, and most costly, to change), and then adding the programmatic extras to measure incremental occupancy gains from each relative to a market average.[2]

Having already acknowledged a preference for Class A buildings by institutional investors, the addition of this parameter results in a modest 10 bps premium in occupancy relative to what is generally achieved in the market on average. Next, our bridge filter reflects only those buildings that were Class A and built after 2000 — this creates a further 140 bps of occupancy. Applying just these two filters improves potential occupancy by 150 bps relative to what might otherwise 'naturally' occur.

Exhibit 3: Bridge to better occupancy



Source: American Realty Advisors based on data from CoStar as of August 2021.

"Could the key to unlocking above-market occupancy in office really be as simple as narrowing the focus to those buildings that offer a few key structural ingredients?"

Another key element present across our sample markets as a potential indicator of higher demand is LEED certification.[3] When we add this to our running list of qualities, occupancy rises a further 390 bps.

Conclusion

Few amenities prove meaningful occupancy drivers once the physical checklist has been crossed off, though adding a fitness center and a restaurant yields an additional 130 bps. However, this is only true *after* the structural elements are in place — replicating the exercise with Class B properties built prior to 2000 and adding the same additive services (LEED certification, fitness centers and restaurants) for the same set of markets achieves an occupancy level 10% *below* market average and 16.7% below our Exhibit 3 example.

This seems to suggest that much of resilient occupancy in office properties is derived from physical attributes, with additive offerings merely serving to improve occupancy on the margins.

Could the key to unlocking above-market occupancy in office really be as simple as narrowing the focus to those buildings that offer a few key structural ingredients? The data suggests it's at least a solid starting point. ◆

Sabrina Unger is Managing Director, Head of Research & Strategy and **Britteni Lupe** is Analyst, Research & Strategy at American Realty Advisors.

Walking the DEI talk

Bringing employees back to the office is an opportune time for organizations to integrate DEI initiatives into the new normal of company culture.

By Eliza Bailey and
Kelsey Harstad,
Belay Investment Group

The institutional real estate investment industry has recently seen positive momentum in the implementation of diversity, equity and inclusion. For the most part, these efforts have focused on recruiting and hiring in order to create a more diverse workforce. Now we need to continue the forward momentum by creating an environment that fosters inclusion in the workplace via a conscious integration of DEI principles into an organization's corporate culture.

As companies look to bring back employees into the physical office, they should take this opportunity to highlight inclusion as part of their re-entry plan and to establish and/or improve on elements of DEI within their company's daily practice. Focusing on inclusion during this transition back to the office could help companies to retain employees they may have recently hired or to attract new diverse employees.

Below are six ideas to help promote a more inclusive culture in the real estate investment workplace.

1. Establish a clear path to promotion

It is important that all employees understand the timelines and expectations associated with achieving milestones along the road to success within your organization. In cases where the path to promotion is clouded by ambiguity — either because it is not clearly defined or because it is a subject not openly and freely discussed — the employee may perceive that they are being held back unfairly. Even if a co-worker's promotion is based on fair and measurable metrics, a nebulous understanding of the requirements to be eligible for promotion could lead to feelings of exclusion. According to NAREIM's 2021 Diversity & Inclusion Survey, respondents stated that "a clear path to promotion" had already been adopted at 48% of companies, while 44% of respondents thought their company would benefit from creating a clearer path to promotion.

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2. Mentorship program

Across all levels, mentorship should not happen only once a year during annual performance reviews, but rather take place as an organic element of the everyday discourse and culture of the company. Mentorship should include discussion of a colleague's goals for career advancement, as well as practical steps to guide them in mapping out a path to success at your organization. Women and minorities should be able to see their diversity represented at the top of the organization in a meaningful way, instilling a sense of support and guidance-by-example from supervisors and other assigned mentors. When women and minorities join organizations where they can't literally see their diversity represented at the top of the Team section of the website, they could start feeling "I don't really belong here" or "It will be difficult for me to be successful here" on day one.

A thoughtful mentorship program can help address some of these issues and make your co-workers feel more welcome and appreciated. This, in turn, can lead to greater employee morale and retention.

[1] "For women, flexible-work programs — such as part-time positions, the ability to modify working hours, and the opportunity to telecommute — remain highly valued. Women ranked them the second-most-effective measure" (and ranked 5th for men — out of 31 initiatives surveyed). BCG, Fixing the Flawed Approach to Diversity, January 17, 2019.

In fact, a DEI mentorship program can also help drive the development of a management succession plan that includes candidates from underrepresented groups — noted from NAREIM's D&I survey as the top idea that companies have yet to adopt (59% of respondents stated their company would benefit and only 33% stated their company had already adopted).

3. Foster unity through common interests

Consider having internal networking groups for employees with similar interests and/or life experiences, such as a working parents group, health and wellness committees, social impact groups, or awards and recognition committees. This should not be a major time investment or distraction for employees; instead, it should be a company-sponsored job enhancement where they can be part of an endeavor they are passionate about. The groups could meet once a month during lunch, bring in a speaker if relevant, etc.

For each of these internal networking groups, companies should lead from the top. Ideally, at least one member of the senior leadership team should be part of these firm-sponsored groups. Senior management participation is fundamentally important, to help get buy-in from across the ranks. Further, when more junior employees have access to senior management in a non-formal, less work-related environment, they can start seeing them more as a person rather than as a title, gender or race.

4. Celebrate diversity

Show you truly value diversity by celebrating it. There are many easy ways to celebrate diversity at your company. Consider, perhaps, expanding on your annual holiday party by including a family-style potluck where each employee brings one of their family's favorite dishes, and before everyone digs in, they talk about the dish and what it means to them. Try a company-sponsored volunteer event or organize charitable donations for nonprofits that support women and minorities. Sample organizations could include Girls for Change, NAACP or domestic violence shelters. There are many other resources and ideas, so consider engaging employees to find out which organizations they are passionate about.

5. Recruitment efforts

Another strategy to celebrate diversity is by asking diverse team members to join in recruitment efforts — to represent the company at college career days, interviewing candidates for positions both below and above their level, asking them for new recruitment ideas, etc. This can send the message to diverse team members that they are valued, their ideas/opinions are appreciated and that they are qualified to represent the company to new recruits. Further, by recruits seeing diverse team members as part of the recruitment process, they may recognize that: i) the company values diversity, and ii) if some of the recruits are also diverse, they may identify with the individual and be more interested in the company. This is akin to recruits joining firms where alums from their college have been successful or are leading the company — if you see what you identify with, it's easier to imagine your own success at the company.

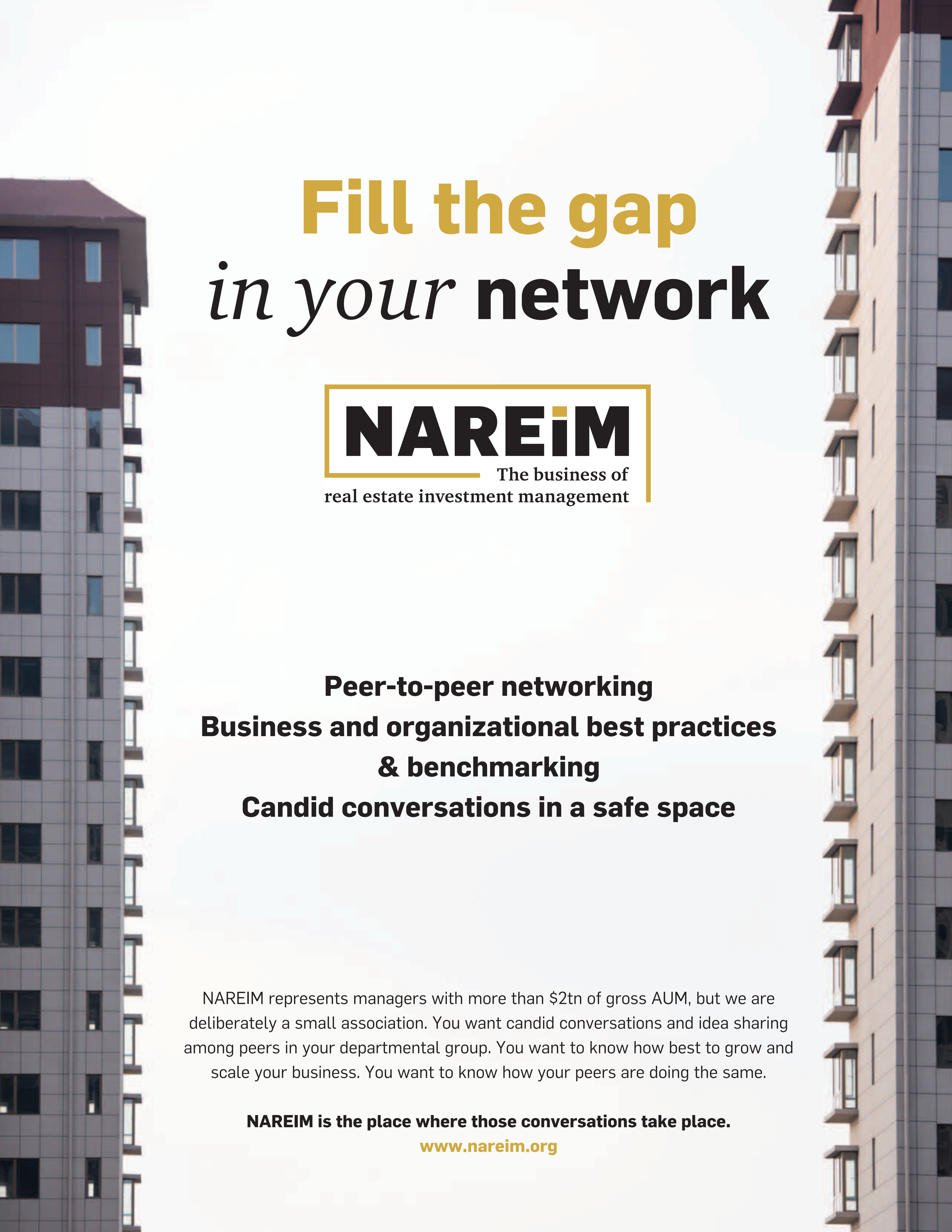
6. Be flexible

With the onset of Covid-19, many employees have had to completely re-think where and how they work, which in many cases have provided them the opportunity to become more engaged in family and community matters while also allowing for more personal time.

The transition to going back to the office may be a significant challenge/adjustment for many employees. For employees who want to continue to have flexible work schedules, granting their request, even one or two days a week, can be a highly valued accommodation. Flexible work schedules are not only greatly appreciated by women in organizations, but a recent BCG study found that men also ranked flexibility very high.[1] Offering flexibility can take on many forms, so consider what works best for your company and what would be the most impactful for your employees.

The recent progress behind valuing and prioritizing DEI across the real estate industry has been empowering. Now we must build upon that momentum as we re-enter the office environment to make a lasting impact and to keep employees engaged. This means that companies must be intentional in creating an environment where everyone feels included and valued. These are some easily implemented ideas to adopt as we all head back to the office. Let's walk the talk by fully integrating DEI into our office environments! ◆

Eliza Bailey is a Managing Principal and **Kelsey Harstad** is an SVP at Belay Investment Group.



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The REIM impact fund OPPORTUNITY

Becoming a signatory to the IFC's Impact Principles can help formalize a sustainable real estate investment management program, but more work lies ahead.

By Anna Murray and Mike Keating, BentallGreenOak

The business of impact investing is booming. The Global Impact Investing Network estimates that the impact investment market — encompassing investments devoted to achieving positive social, economic and environmental impact alongside financial return — was worth $715 billion globally as of April 2020.[1] That represents 42.4% growth from 2019.[2]

Until recently, the commercial real estate industry was sitting on the sidelines of this market. Yes, many real estate investment managers have long prioritized environmental, social and governance (ESG) factors in investment and operational decisions. Very few, however, are signatories to the Operating Principles for Impact Management (Impact Principles) established by the International Finance Corporation (IFC). The IFC's Impact Principles provide a framework to help asset managers and investors to ensure that impact considerations are integrated throughout the investment lifecycle.

In April 2021, BentallGreenOak (BGO) proudly announced that it became a signatory to the Impact Principles through its BGO Diversified US Property Fund. It was a natural next step as the fund has a strong history of supporting economic and social progress. Based on available information, BGO Diversified is among the first open-end, diversified, core equity real estate funds to attain this designation.

The impact investing market offers a tremendous opportunity for real estate investment managers who share the goal of making a positive impact in the world while achieving financial return. Following are key reasons why it's time for more managers to consider becoming signatories to the Impact Principles, and practical advice for getting started.

The business case for impact funds

Numerous studies prove that investing in a responsible manner produces tangible returns. Recent IFC analysis found that, among the 656 companies in its portfolio, those with good environmental and social performance outperformed clients with worse environmental and social performance by 210 basis points (bps) on

1 Global Impact Investing Network, 2020 Annual Impact Investor Survey.
2 Leslie P. Norton, Impact-Investing Market Expands to $715 Billion, Survey Says, *Barron's*, June 11, 2020.
3 International Finance Corporation, The Business Case for Sustainability.

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return on equity and by 110 bps on return on assets.[3]

As the link between financial and ESG performance becomes more widely acknowledged, an increasing number of pension funds and other institutional investors are allocating capital to achieve specific social and environmental goals. Select groups of international investors and large domestic public funds highly value the designation and are going down the path of requiring that a portion of their investments be impact funds.

As this trend gains traction, asset managers that become impact investing signatories will have a distinct advantage in raising capital from investors who are exclusively looking at this space. Additionally, signing onto the Impact Principles reinforces accountability and pushes investment managers to continue to evolve and improve practices related to achieving ESG goals.

How to measure impact

Becoming a signatory to the Operating Principles for Impact Management requires adoption of nine principles. The principles provide an overall framework for designing and implementing an impact management system and ensuring that impact considerations are integrated throughout the investment lifecycle. Then it is up to asset managers to determine the specific tools, approaches and impact measurement frameworks that align with their funds and operational practices. The Impact Principles are scalable and relevant to all types of investors and sizes of investment portfolios, asset types, sectors and geographies — and how they are applied will vary by investor.

> “The impact investing market offers a tremendous opportunity for real estate investment managers who share the goal of making a positive impact in the world while achieving financial return.”

Many asset managers align the objectives of their impact fund with the United Nations Sustainable Development Goals (SDGs) or other widely accepted goals, and apply other international best practices to create their framework and establish reporting metrics. BGO Diversified, for example, has a framework aligned with the Operating Principles for Impact Management, leverages the principles of the Impact Management Project (IMP) to outline impact measurement, and uses metrics from the Global Impact Investing Network's (GIIN) Impact Reporting and Investment Standards (IRIS). The SDGs were applied to frame the fund's focus areas of resilient communities, sustainable spaces and climate change. Following are examples of how we measure impact across these three areas:

1. ***Resilient communities.*** We strive to build thriving, diverse neighborhoods through our investments. Since 1982, BGO Diversified has created $10.7 billion in wages and 56,329 construction jobs in the US. Additionally, the fund has generated approximately $22 billion in

Evaluating the impact of assets

The BGO Diversified Fund evaluates impact related to sustainable spaces, resilient communities and climate change. In 2021, our asset-level benchmarking revealed that the portfolio's top performing asset from an impact perspective is 200 West Madison, a 45-story, Class A office building in downtown Chicago. The high-rise is both LEED Gold and Fitwel certified, and ranks as 'strong' for its impact on community health and well-being, thanks to the presence of public art, a fitness center, bike lockers and showers, healthy food options, and other features.

Our benchmarking program does more than highlight strengths — it also uncovers opportunities for improvement. For example, at 200 West Madison, our sustainable investing team has identified areas in which asset managers can focus to improve the social impact score, such as considering certification or accreditation for property accessibility and inclusive design.

economic activity (output or sales) and 149,321 total jobs across the US.

2. *Sustainable spaces.* Healthy buildings have been growing in importance for well over a decade, but the pandemic underscored the importance of the built environment for supporting health and well-being. In fact, Fitwel, the organization dedicated to healthy building certification, launched its Viral Response Module in 2020 to set the standard for mitigating viral transmission in buildings. In all buildings in our portfolio, we track wellness features such as healthy food options, access to free drinking water, nature views, and indoor plant or water features, as well as playgrounds, walking trails, communal spaces and other public amenities. A growing number of properties in the BGO Diversified portfolio hold healthy building designations such as Fitwel. Just as important is ensuring that buildings support diverse occupants with prayer spaces, lactation rooms, accessibility features and other inclusive amenities.
3. *Climate change.* Of all areas of impact, environmental impact is the most established measure in the commercial real estate industry. However, the measures of progress are continually evolving. At BGO, we track typical measurements of environmental impact, such as energy conserved and greenhouse gas reduction. We're proud that 96% of the BGO Diversified portfolio is green-building certified. Now, we're also prioritizing climate risk profiling as the effects of climate change become more widespread. Leveraging the proprietary climate resilience tool developed by our Sustainability Innovation Lab, we have conducted asset-level climate risk assessments for 100% of the assets in the portfolio, and 89% have established climate resilience adaptation plans.

Whatever areas your fund decides to focus on, measuring impact can be overwhelming if you don't have the tools in place to track metrics at the asset and portfolio level. In 2019, we developed a social impact assessment tool — the first of its kind in the industry — to collect data and develop individual plans for improvement. That tool has been instrumental in tracking the metrics needed to align with the Impact Principles.

How to get started: Operationalizing impact investing and reporting

The process of becoming a signatory to the Impact Principles can be daunting, even for companies that have well-established ESG investing mandates. Having the right internal infrastructure is critical, with the skilled talent who understand sustainable investment principles as well as the technology and operational requirements for tracking impact data.

At BGO, we have built a robust sustainable investing team and a culture grounded in sustainability. Building off that solid foundation and our global-leading systems, we worked with a consultant to ensure proper alignment to international best practices as we established our impact investing framework.

The biggest challenge was creating a credible framework aligned with our impact priorities, while tailored to the fund mandate. We knew our effort needed to be intentional and that our team would need to be able to measure and report on progress. Our framework is aligned to international best practice, is flexible, and has teeth and can stand up to scrutiny among impact investors.

In addition to establishing a framework, getting the data management tools and processes in place is critical. Many asset managers track environmental data, but standardizing that information across a portfolio requires a different level of operational and technology prowess that is best centralized with a sustainability team. And depending on the goals of your fund, you may find that you must now provide substantive evidence of what had previously been soft commitments, such as community involvement programs or inclusive amenities.

Don't underestimate the level of communication and coordination that is involved in the effort of becoming a signatory. It's important to have a strong leader championing the effort who can gain executive sponsorship and convince product and investment management teams to buy into the sustainable investing initiatives.

Is becoming a signatory the right move for your fund?

At BGO, we realized it made sense to become a signatory because our BGO Diversified investments are already aligned with the Impact Principles. However, once we decided to formalize our impact investing mandate, it was time to transparently commit to a credible path forward.

In the age of greenwashing, having credible data is key, so it can make sense to start small as you learn and understand what is required of signatories. Industry peers can be a valuable source of information and guidance on this front.

When you become a signatory, you are signing up for a journey. This is a long-term commitment that requires a mindset for continual evolution in how you invest. We hope that more peers join us on this path so that we can learn from each other and push each other to continually improve as we implement the Impact Principles in our funds. ◆

Anna Murray is Managing Director and Global Head of ESG at BentallGreenOak. **Mike Keating** is Managing Director and Portfolio Manager at BentallGreenOak.

Gateway suburban office *outperforms* CBDs

Traditionally regarded as investment mainstays, CBD offices in gateway metros have underperformed their suburban counterparts. Investors have been slow to catch on and missed out on opportunities.

By Jamil Harkness, Bailard, Inc.

Conventional wisdom has it that investing in office properties in central business districts (CBDs) of major US metros provides the best opportunity for steady income, capital appreciation and strong total returns. This thinking has resulted in major institutional investors, both domestic and international, allocating enormous amounts of capital to CBDs in hopes of achieving superior nominal and relative returns. Between 2001 and 2010, this was true as the NCREIF Property Index data shows that CBD office assets, notably in global gateways, had exceptional total returns.

The tables turned during the decade that followed (2011–2021). In the midst of the longest economic expansion in US history, suburban office property total returns (8.4%) outperformed CBDs (7.7%). However, not all suburban markets are equal — global gateway suburban office properties have been standouts. This article will provide some insights into why suburban office properties in the gateway markets had higher nominal and relative returns.

Market selection and grouping process

To perform its analysis, Bailard divided major metro areas into three groups of seven cities/metros, spread across the country (see Exhibit 1). These groups are based on recognized investor sentiment (as it pertains to office market nodes), office investment volumes, population size and demographic trends. The groupings are as follows:

1. *Global gateways* (colloquially known as the ‘sexy 7’) enjoy the status as top-tier real estate investment markets due to their myriad economic drivers, impressive cultural diversity and large population size. These markets have the highest barriers to entry.

[1] Debra Moritz, CBD vs Suburbs? The Millennial Effect, Cushman & Wakefield, October 16, 2018. Updated data through Q4 2020.

Exhibit 1: Markets in the three groupings

Group	Metro areas
Global gateways	Boston, Chicago, Los Angeles, New York, San Francisco Bay Area, Washington D.C., Seattle
Primary non-gateways	Philadelphia, San Diego, Denver, Miami, Portland, Atlanta, Austin
Other non-gateways	Phoenix, Orlando, Orange County, Dallas Fort-Worth, Salt Lake City, Minneapolis, Charlotte

2. *Primary non-gateways* have expanding economic diversity, large populations and favorable demographic trends. Most of these metro areas have modest barriers to entry.
3. *Other non-gateways* have similar attributes to the primary non-gateways, but they have a combination of traditional and alternative economic drivers. This grouping offers an array of value-add opportunities and the lowest barriers to entry of the three subgroups.

Performance components at a glance

Real estate returns are the product of two components: income and appreciation. The first is driven by cash flow performance at the asset level. Higher rents and higher occupancy levels, along with stable and/or lower expenses, contribute to increasing cash flow generation and higher income returns. The second is driven by the capital markets. Equity and debt investor demand drives pricing. When the demand for product exceeds the supply of product, prices will be driven up and yields will be pushed down. Conversely, if investors shun the asset class, values go down and yields go up. There are numerous reasons investors flock to, or retreat from, real estate including perceptions of risk, return expectations both nominally and vis-à-vis other assets, confidence in the economy and/or the asset class, tolerance for illiquidity, and concerns about inflation.

Suburban locations are proximate to a metropolitan area, which has driven many corporate users to these locations to ensure access to high quality labor while enjoying incentives such as lower rents, operating costs and property taxes. According to Cushman & Wakefield, suburb-to-suburb moves have represented over 40% of headquarters moves among Fortune 500 corporations in the past decade, more than relocations from the suburbs to CBDs. Of those moves, 38% of the new locations were in global gateway suburban markets.[1] Many of the suburbs that benefitted from those relocations have features touted by urban cores (i.e., dense but livable, an active live/work/shop/play landscape), a lower cost of living and easy access to CBDs via public transportation.

From an investment standpoint, suburban offices offer higher total return potential and good relative value when compared to CBD properties. High quality assets can often be found at or below replacement cost. Current yields are better, with cap rates in suburban markets generally 50 to 200 basis points (bps) higher than similar quality CBD properties. Deal sizes tend to be smaller, ranging from $25 million to $75 million. For these reasons, investing in suburban office assets may be the right strategy for institutional and high-net-worth investors.

Prior to 2011, office income returns across all tracking time periods showed no evident trend of favoring suburban nodes over CBDs, despite the

Exhibit 2: Income returns by market *Period ending June 30, 2021*

Income return	Global gateways (CBD)	Global gateways (Suburban)	Primary non-gateways (CBD)	Primary non-gateways (Suburban)	Other non-gateways (CBD)	Other non-gateways (Suburban)
1 year	4.0%	4.7%	5.0%	5.0%	4.2%	4.9%
3 year	3.9%	4.7%	4.9%	5.1%	4.5%	4.9%
5 year	3.9%	4.7%	5.0%	5.1%	4.7%	5.0%
10 year	4.3%	5.1%	5.3%	5.5%	5.6%	5.5%
20 year	5.3%	6.1%	5.9%	6.3%	6.4%	6.2%

Source: NCREIF Property Index, 2021.

Exhibit 3: Appreciation returns by market *Period ending June 30, 2021*

Appreciation return	Global gateways (CBD)	Global gateways (Suburban)	Primary non-gateways (CBD)	Primary non-gateways (Suburban)	Other non-gateways (CBD)	Other non-gateways (Suburban)
1 year	-2.7%	**1.7%**	-2.6%	2.6%	-3.7%	-0.9%
3 year	-0.6%	**2.6%**	0.7%	1.3%	0.3%	-0.9%
5 year	0.2%	**2.8%**	1.2%	1.1%	1.3%	0.0%
10 year	3.2%	**4.1%**	3.9%	2.9%	1.5%	2.7%
20 year	2.9%	**1.7%**	1.9%	0.3%	-0.2%	0.4%

Source: NCREIF Property Index, 2021.

Exhibit 4: Total index returns by market *Period ending June 30, 2021*

Total return	Global gateways (CBD)	Global gateways (Suburban)	Primary non-gateways (CBD)	Primary non-gateways (Suburban)	Other non-gateways (CBD)	Other non-gateways (Suburban)
1 year	1.2%	**6.5%**	2.3%	7.7%	0.5%	4.0%
3 year	3.3%	**7.4%**	5.7%	6.4%	4.9%	4.0%
5 year	4.2%	**7.6%**	6.3%	6.2%	6.1%	5.0%
10 year	8.1%	**9.3%**	9.3%	8.5%	7.1%	8.3%
20 year	8.3%	**7.9%**	7.9%	6.6%	6.3%	6.7%

Source: NCREIF Property Index, 2021.

dotcom/telecom crash (2001–2002) and Global Financial Crisis (2008–2010). Since 2011, income returns have favored suburban nodes due to better fundamentals (see Exhibit 2). Vacancy rates in the suburban subgroups (of the global gateways, primary gateways and other non-gateways) declined by 52 bps, 248 bps and 183 bps, respectively, while the vacancy rate increased by 352 bps, 249 bps and 92 bps in the CBD groups, according CBRE data. Rent growth followed a similar trend, albeit with less dramatic differences, as the suburban nodes of the global gateways, primary gateways and other non-gateways had average annual rent growth of 4.0%, 3.1% and 2.5%, respectively vs. 3.7%, 3.0% and 1.9% in the comparable CBD clusters.

What separates the global gateway suburbs from the other subgroups is capital appreciation. From 2001 to 2010, all suburban subgroups had weaker 10-year annualized appreciation compared to CBD office properties, but the trend reversed in the next decade. Since 2011, global gateway suburbs had a 10-year annualized rate of 4.1% vs 3.2% for CBDs (see Exhibit 3) due to increased income from filling vacancies, rent growth and cap rate compression. Growing investor confidence in the economy and office real estate fundamentals along with greater interest in suburban office assets from value-oriented investors increased the flow of capital into many suburban office nodes, and especially the global gateways. This, in turn, helped push values higher for those properties.

Strong performance

Between 2001 and 2010, CBD total return performance was stronger than in the suburbs. Since 2011, the global gateway suburban office properties yielded an average annualized return of 9.3%, 120 bps per year better than their CBD counterparts (8.1%) over the same period (see Exhibit 4). Even when looking at 5- and 3-year returns, the global gateway suburbs still offered superior returns. Conversely, other suburban subgroups did not consistently outperform their corresponding CBDs.

Despite favorable fundamentals and higher returns, institutional investors consistently shunned suburban assets in favor of their CBD counterpart. According to the CoStar Group, total sales volume in global gateway CBDs increased by 54.4%

Exhibit 5: Standard deviation of quarterly index returns for markets *Period ending June 30, 2021*

Standard deviation	Global gateways (CBD)	Global gateways (Suburban)	Primary non-gateways (CBD)	Primary non-gateways (Suburban)	Other non-gateways (CBD)	Other non-gateways (Suburban)
1 year	0.6%	**1.5%**	1.5%	2.1%	1.7%	1.2%
3 year	1.5%	**1.4%**	2.3%	1.6%	2.5%	1.2%
5 year	1.3%	**1.1%**	1.9%	1.3%	2.9%	1.2%
10 year	2.1%	**1.4%**	2.5%	1.8%	2.4%	2.1%
20 year	6.3%	**5.4%**	5.1%	4.6%	5.8%	4.9%

Source: NCREIF Property Index, 2021.

Exhibit 6: Sharpe ratios for markets *Period ending June 30, 2021*

Sharpe ratio	1 year	Rank	3 year	Rank	5 year	Rank	10 year	Rank	20 year	Rank
Global gateways (CBD)	1.7	4	1.4	6	2.4	5	3.4	5	1.1	4
Global gateways (Suburban)	**4.1**	**1**	**4.3**	**1**	**5.7**	**1**	**6.1**	**1**	**1.2**	**2**
Primary non-gateways (CBD)	1.4	5	1.9	4	2.7	4	3.6	4	1.3	1
Primary non-gateways (Suburban)	3.5	2	3.2	2	3.9	2	4.6	2	1.2	3
Other non-gateways (CBD)	0.2	6	1.5	5	1.7	6	2.7	6	0.9	6
Other non-gateways (Suburban)	3.3	3	2.2	3	3.3	3	3.7	3	1.1	5

Source: NCREIF Property Index, 2021..

over the prior decade (compared to a 34.0% increase in suburban global gateways); this was over four times the transaction volume of global gateway suburban offices. As a result, investors favoring CBDs over the suburbs have missed out on the arbitrage opportunity presented by suburban assets and their higher going-in yields.

A safe bet

Global gateway suburbs provided better risk-adjusted returns than any other subgroup over the 1-, 3-, 5- and 10-year time periods examined. Not only do they provide the highest returns, but global gateway suburban properties have demonstrated the lowest volatility, with a 10-year average annualized standard deviation of 1.4% (see Exhibit 5), among the six subgroups examined. The respective Sharpe ratios show the same trend (see Exhibit 6). Suburban nodes within the primary and other non-gateways also showed less volatility than their CBD counterparts, a strong indication that suburban nodes offered more favorable risk-adjusted returns over the last decade.

The missed opportunity

Despite higher returns, solid fundamentals and improved capital market dynamics, many large institutional investors have not invested in office properties in suburban markets. Why? Answers range from deal size to presumptions about future performance, perceptions about liquidity, concerns about management intensity and tenant turnover, and the idea that the suburbs are dying at the expense of ascendant and vigorous CBDs. Data from the last ten years proves that suburban markets, especially global gateways, are neither dead nor dying. Institutional investors that may have missed the boat on suburban investing in the past can yet benefit in the post-Covid-19 pandemic world as office-user dynamics have the potential to favor the suburbs over CBDs across the country. ◆

Jamil Harkness is Research and Performance Associate, Real Estate at Bailard, Inc.

3 tangible steps *toward* DECARBONIZATION

Decarbonization doesn't have to be daunting. Taking immediate action in a few critical areas will reduce an asset's carbon footprint while adding business value.

By Raphael Rosen, Carbon Lighthouse

With 40% of annual US carbon emissions coming from the built environment, commercial real estate strategies for decarbonization are becoming a focus among environmental, social and governance (ESG)-focused investors and managers.

However, the path towards decarbonization isn't always clear or straightforward. It's important to recognize that decarbonization is a journey, not a destination. Taking action doesn't mean having every piece up and running right now. It means taking the right first steps to build a foundation for an ongoing, adaptive, sustainable carbon emissions strategy — one that's flexible and can adapt to changing market needs and advancements to help scale your efforts.

Here's how to get started:

Step 1: Assess your state

You won't know how much work needs to be done without first assessing the sources of carbon emissions along with the resources you currently have and your existing efforts to reduce those emissions. If you're starting from scratch, ask yourself the following questions to determine where your investments are likely to make the most impact and to help prioritize your efforts:

- Which of my assets are the oldest and likely emitting the most carbon?
- What equipment in those assets aren't running efficiently and should either be adjusted or replaced?
- Where are the gaps in technology solutions and audits I'll need to fill?
- What solutions and data do I have now that can help me develop my approach?
- What are my asset plans — will I be selling and may not need to invest as much, or am I holding on to the property for a few years and should invest more in decarbonization?
- Do I have the right experts, partners or vendors to help me assess both at the asset and portfolio level?

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- What insights will my organization require to move forward with decarbonization investments? What are my budget constraints? Will I need clear evidence of ROI (and at what percentage) before making any investments?
- From there, what solutions and partners will help me move through internal approvals so I can begin executing against decarbonization tactics as quickly as possible?

Determine what's most important to your organization's and portfolio's goals and prioritize accordingly on what to address first. Is it energy cost savings first, then reallocate to decarbonization investments? Is it operational efficiency to ensure you're getting the most of your existing systems, then determine what's needed for further decarbonization? The answers might even be different for each asset. If your asset is in great shape, decarbonization might be the top priority. If the building isn't running well, operational efficiency might take priority and your decarbonization strategy will have to factor in those additional investments.

> "Decarbonization isn't new and there are valuable experts in the cleantech space that can provide shortcuts to overcome many of the decarbonization challenges (while avoiding some critical early mistakes)."

Answering these initial questions will help you get a full understanding of what's needed and how best to prioritize your efforts and resources.

Step 2: Speak with the experts

Decarbonization isn't new and there are valuable experts in the cleantech space that can provide shortcuts to overcome many of the decarbonization challenges (while avoiding some critical early mistakes). It's important to talk to several experts and solution providers to get their perspectives on what your portfolio is capable of, what immediate holes need to be filled, and what strategies and solutions will work best for your asset's needs. They can help set realistic, attainable goals to guide investments and then execute against those goals.

In the same way that technology helped retail overcome its industry challenges and unlock massive opportunities, the right technologies will also help CRE power through its

Quick decarbonization opportunities

Carbon Lighthouse has been decarbonizing CRE for over a decade. Here are the top energy efficiency measures that have helped our clients achieve real, immediate impact.

Most common

1. Lighting retrofit
2. Optimal start
3. Schedule to occupancy (often recommended with optimal start)
4. Duct static pressure (DSP) reset and optimization
5. Economization

Most common controls measures

1. Optimal start
2. Schedule to occupancy (often recommended with optimal start)
3. Duct static pressure (DSP) reset and optimization
4. Economization
5. Supply air temperature (SAT) reset

Highest ROI

1. Schedule to occupancy
2. Differential pressure (dP) reset and control
3. Chiller staging
4. Fix valve leakage
5. Condenser water pump (CWP) variable control

Highest median cost savings

1. Chiller staging
2. Cooling tower staging
3. Duct sealing
4. Transformer retrofit
5. Condenser water pump (CWP) variable control

decarbonization challenges. Ensure you have the right partners from the start. Look for providers that can show you clearly (in their contract, reports, etc.) how they will help you lower your carbon emissions (not just your energy use or costs). Look for partners that will continue to support you throughout your decarbonization journey with updated equipment or services that can adjust and align with future market needs. Cloud-based solutions in addition to deep building expertise from your vendor teams are a must. As you're evaluating technology solutions and decarbonization partners, here are a few of the must-have requirements to look for:

- ***Clearly defined results or deliverables.*** Are you getting a product, an ongoing service or actual carbon reduction? The best solutions will offer some variation of all three. Yes, getting the right products, platforms and tools in your arsenal is important. But a proptech investment on its own won't be enough. You must also consider the human expertise and skills needed to ensure the successful execution of those resources. Can you successfully deploy solutions to yield ROI and actual carbon emissions reductions?
- ***Data-driven solutions, not just data.*** Collecting data is now relatively standard in business. However, the type, frequency and subsequent analysis of that data makes all the difference when selecting solutions for your decarbonization journey. Outdated data that is simply stored is of no use. Data must be collected in real-time, from several sources, and analyzed holistically to make the data actionable and impactful. Many solution providers and consultants work with outdated data that simply doesn't tell enough of a story to build actionable decarbonization plans. Today's data-driven technologies offer real-time insights to get ahead of business challenges like ESG and decarbonization and turn them into business opportunities. Data-backed solutions also make it easier to demonstrate clear ROI or adjust strategies accordingly.
- ***A proven track record.*** Obviously, seeing a potential vendor's work helps you validate claims and avoid greenwashing. In addition, past work also offers you critical lessons. Experienced, successful providers will help you bypass mistakes, take advantage of opportunities that you may not see and even learn from the mistakes of others. You might get ideas that your organization might want to consider. Take the time to talk to current and past clients to get

an even better understanding of what to expect.

- ***Solutions that can grow and scale over time.*** Be sure the solutions and service providers you work with can grow and scale with both your and the market's changing decarbonization requirements. Again, ESG isn't going away, and reducing carbon emissions is a main criterion in evaluating an organization's ESG achievements. However, it's still early. New solutions are being developed, new best practices are surfacing, smarter strategies are helping achieve bigger decarbonization impact with less heavy lifting and more affordable technology solutions are becoming available. Be sure you're building a strong foundation of tools, solutions and experts that can grow, scale and adapt for years to come.

Step 3: Identify quick decarbonization wins

Thankfully, early decarbonization strategies have uncovered several immediate and relatively easy energy savings strategies to reduce carbon emissions, such as:

- ***Focus on the asset's biggest energy users and carbon emission contributors:*** the heating, ventilation and air conditioning (HVAC) system. Some solutions don't require capex-heavy fixes. For example, building management systems (BMS), advanced sensors, AI-driven software solutions and data analytics will help better manage the overall HVAC systems to ensure each individual piece of equipment is working efficiently and effectively as part of the overall system.

" Be sure the solutions and service providers you work with can grow and scale with both your and the market's changing decarbonization requirements. Again, ESG isn't going away, and reducing carbon emissions is a main criterion in evaluating an organization's ESG achievements. "

- ***Start with low-hanging fruit with cost-effective updates in the lighting system.*** You might already be using LED lights throughout the building, but adding sensors and automated scheduling will align the use of lighting to when spaces actually need lighting (vs. after hours of when a conference room is not being used).
- ***Find energy-saving solutions*** that also address the 50% of the energy used by tenants in triple net lease structures (NNN). Historically, CRE owners and operators with NNN leases have never prioritized energy use since their tenants pay for their own utilities. However, with increasing local, state and federal regulations focused on lowering the carbon emissions of commercial buildings, owners and operators are now responsible for lowering their building's total carbon emissions (including those resulting from tenant's energy use). That means owners and operators must find a way to lower the 50% of carbon emissions that they don't manage.

The industry is finding creative ways to help owners and operators work around this challenge. Marketing back carbon reduction efforts and achievements, updating lease terms to manage energy use more effectively from the start, and looking for solution providers that have already bypassed the tenant hurdle can all play a big role in collectively lowering tenants' energy use and carbon emissions. As today's tenants are also seeking ways to reduce their own carbon emissions, offer them solutions to reduce their energy use and carbon emissions.

Conclusion

CRE is in the midst of a massive shift. Tenants are different. Investors are different. Assets will be used differently. Business will be conducted differently. Decisions need to be made quickly. Taking the first step when the direction is unclear is often daunting and overwhelming. Yet, in this moment of uncertainty, CRE can still rely on tried-and-true business strategies that will never change — focus on your tenant and stakeholders. Finding decarbonization solutions is imperative for the future of the industry. Take a big first step or a small first step, but most importantly, just take *a step* to start your decarbonization journey. ◆

Raphael Rosen is CEO and Co-founder of Carbon Lighthouse.

Honeybees *create a sweet* office AMENITY

Office building rooftop beehive programs promote sustainability and offer tenants unexpected benefits.

By Allen Aldridge, KBS

Beehives are popping up on urban rooftops throughout North America, including five premier KBS office buildings: Bank of America Tower in Raleigh, North Carolina; 3001 Washington Boulevard and 3003 Washington Boulevard in Arlington, Virginia; 1000 Continental in King of Prussia, Pennsylvania; and one asset in Wayne, Pennsylvania.

At these properties, we have implemented a beekeeping program that gives back to nature, increases sustainability and enhances the well-being of tenants. The program is a whole new spin on the green revolution and a sweet office amenity for tenants: an entertaining and educational experience on the lives of honeybees and their product — honey.

KBS began to think about sustainable features like rooftop beehives several years ago. We purchased 3003 Washington Boulevard in 2014 and 3001 Washington Boulevard in 2015 —

Alvéole Washington

Alvéole Washington

both LEED Gold-certified buildings with green roofs installed. The urban apiary program was a natural offshoot of these elements, which were already in place.

Best of all, the program presented very few implementation challenges. The most disruptive element was, of course, the pandemic. How would we be able to connect our tenants, who were working remotely, to what was happening on the rooftops of the buildings they would normally be occupying? Fortunately, emerging technologies such as video conferencing and livestreaming helped solve for that, increasingly attracting our tenants and their family and friends to watch the program's video updates.

In addition to being an innovative tenant amenity, urban apiaries (beehive collections) at commercial buildings are benefitting the environment. Bee populations are on the decline throughout the US, decreasing from 6 million hives in the 1940s to around 2.5 million today. This is significant since one-third of the food supply is dependent upon pollination; honeybees, which pollinate more than $15 billion in crops a year, are a critical part of our country's agricultural production and economy. One hive contains approximately 50,000 bees, which must visit five million flowers and travel the equivalent of four times the circumference of the earth to make one quart of honey.

> “Although the beekeeping program incurs some expense, the benefits tend to outweigh the costs because it is so unique and interesting — and good for the environment, too.”

What's more, according to Smart Cities Dive, urban apiaries can have a greater positive impact on food production than rural bees. Not only do urban bees survive better, produce more honey and live healthier lives than rural bees, but they also have a winter survival rate of 62.5% compared to only 40% for their rural counterparts.

An advantageous cost/benefit ratio

Although the beekeeping program incurs some expense, the benefits tend to outweigh the costs because it is so unique and interesting — and good for the environment, too.

Beekeeping companies facilitate the process, run the entire program, manage operation of the hives and make the whole experience fun and engaging for

Properties made for beekeeping

The rooftop of Bank of America Tower in the North Hills section of Raleigh, North Carolina features two beehives, each holding about 65,000 honeybees. The hives were recently installed and are maintained by a company that runs an urban apiary program on corporate campuses around North Carolina. The company's main goal is to rebuild the honeybee population and engage employees in its mission of saving bees.

The addition of these hives enables areas near the apiaries to be pollinated, which in turn helps flowers and vegetation in the region to thrive. We anticipate that the program will have a strong positive impact on the surrounding 18,000 acre stretch of the environment in Raleigh, while providing sweet benefits to KBS tenants at the property.

Meanwhile, the program farther north in Arlington, Virginia, at 3001 and 3003 Washington Boulevard provides turnkey urban apiaries to businesses and schools. Our partners the Building Owners and Managers Association (BOMA.org) ensures that the program is managed professionally and is meeting high safety standards.

The two Arlington buildings are adjacent LEED Gold-certified towers and ideal for beehives. During base construction as part of the LEED design, we installed a green roof on one of the buildings. While the roofs are not mandatory to the bees' survival, they are an added benefit as the bees use the flowers on the roofs to produce honey. Tenants at both these properties are highly engaged with the hives' progress, with up to 150 people joining the livestream webinars during the Covid-19 pandemic.

Similarly, the two Pennsylvania–based KBS properties in the program were primed for beekeeping. KBS also has a community garden at that properties. The hive is not only a living complement to the garden, but its components — lavender and assorted flowers — also become a part of the pollination process. We will soon produce sustainable on-site products made with lavender honey produced from herbs and flowers from the firm's own land.

tenants. Apiary organizations install the hives on the rooftop in the Spring. A beekeeper visits every three weeks to service the hives and provide livestream webinars of their progress for tenants to view in real time. The apiaries also host individualized webpages for each property in the program. In the Fall, the honey is harvested. The hives stay in place year-round and are monitored throughout the winter.

As an added amenity, at most properties, we are able to give tenants jars of the honey the bees produce, featuring their building's logo on the label. At 100 pounds of honey per hive produced each year, each building can produce several hundred jars, depending on the number of hives installed.

Urban apiaries require a total of 10 feet of space for the beehive and the surrounding area. Ideally the hives should be elevated to allow the bees to approach and depart unencumbered. The minimal amount of space required for the hives means that the remaining rooftop space can still be utilized for other functions where it makes sense.

Although the actual ROI for this program can't be measured, the price is a low dollar value for a program that is well received and available to every tenant at these properties. We, our property managers and apiary partners measure ROI by the level of engagement the hive inspires.

Added benefits

Aside from the environmental gains and gifts of honey KBS is bestowing on our tenants, the urban apiary program offers additional benefits.

The beekeeping program is a great way for the firm to do something positive for the environment and to stay in contact with tenants, even when they're not physically at the building. We are eagerly anticipating how much additional interaction will be generated by the hives once people return to the office.

In addition, the beekeeping workshops at these five KBS assets have allowed each building's community to experience a day in the life of a beekeeper by virtually opening an actual buzzing hive. An interactive experience, the program's online component has also provided others the opportunity to escape the house, apartment or desk for a moment and get a little taste of what a typical beehive inspection looks like. Aside from being ideal for office buildings, rooftop urban apiaries could also easily work atop other property types, such as industrial, hotel, medical office or apartment buildings. ◆

Allen Aldridge is Senior Vice President and asset manager at KBS.

TARGETING RE's next generation at the high school level

The Real Estate Exchange (REEX) Program aims to address real estate's lack of ethnic diversity by introducing high school students to careers in the real estate industry.

By R. Kelly Cameron, MIT Center for Real Estate

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[2] J. Banister, K. Neubauer & A. Martinez, Most Black Students Don't Know About CRE. The Industry is Trying to Fix That, *Bisnow,* August 4, 2021.
[3] J. Reece, Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate and Discrimination Engage and Inform Contemporary Policy? *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 2021, *7*(1), 110–133.

In a 2011 survey focusing on the career aspirations of over 22,000 high school students across the US, the *Journal of Vocational Behavior* reported that the top five occupations identified by youth in secondary schools included artist, lawyer, musician, FBI agent and actor/actress.[1] Despite being a $16 trillion-dollar industry, real estate is still a relatively unknown career path among underrepresented high school students. For the purpose of this article, underrepresented high school students are defined as African American/Black, Latino/Hispanic (non-White) and Asian. Beyond the work of a real estate agent and/or real estate broker, where can an underrepresented high school student learn about a lesser known, non-traditional career in real estate?

Real estate data breakdown

According to a 2018 US Census Bureau data survey, and reported by Zippia.com, a web-based real estate careers reporting platform, the most common ethnic groups among real estate investors are Whites, making up approximately 68%, followed by Hispanics/Latinos (non-White) at 16%.

> "The absence of research poses a challenge for accurately determining where ethnic and gender deficiencies exist across real estate careers, particularly on the finance and investment side of the industry."

Comparatively, in single digits are Blacks/African Americans at 8%, Asians at 5%, with undefined/multi-racial individuals coming in at 2% and Indigenous at 1% (see Exhibit 1).

A need for change in real estate

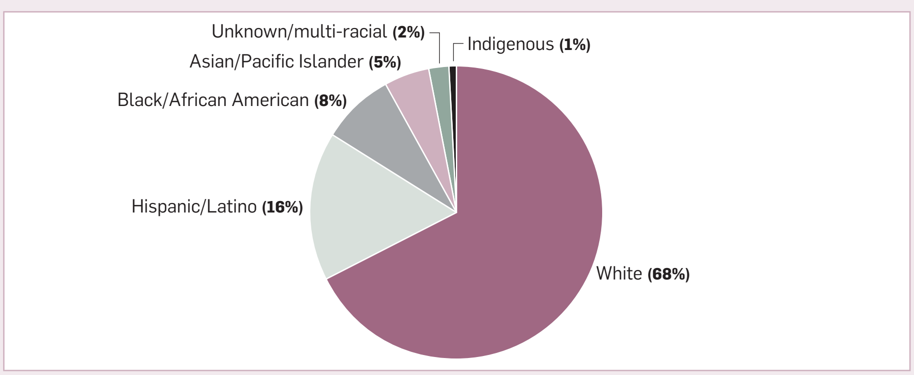
Real estate remains an industry dominated by White males. In the August 2021 edition of Bisnow, the authors of *Most Black Students Don't Know About CRE. The Industry is Trying to Fix That* report 16 of the 26 largest REITs had zero people of color in their C-suites as of November [2020], and six had all-White C-suites and boards of directors.[2] From a US Census Bureau longitudinal data study, the aforementioned percentages are a reflection of findings related to ethnic and investor career trends across the real estate profession.

At present, limited research exists related to academic programs involving high school students and learning about real estate as an industry. The absence of research poses a challenge for accurately determining where ethnic and gender deficiencies exist across real estate careers, particularly on the finance and investment side of the industry. However, limited research presents an opportunity to bring forward statistical data to accurately assess the reasoning associated with the ethnic deficiencies plaguing the industry. Producing research studies is not only a pathway for change; it's a platform to visualize, contextualize and further understand the nuanced history of the real estate profession and the absence of marginalized and disenfranchised populations.[3]

To address known ethnic deficiencies in real estate, the Center for Real Estate at the Massachusetts Institute of Technology (MIT), along with the Baker Program in Real Estate at Cornell University, and Real Estate Program in the Herbert Business School at the University of Miami teamed up with leaders from Real Estate Executive Council (REEC) to pilot a summer learning program called the Real Estate Exchange Program, or better known as the REEX Program.

The REEX program is coordinated through Leadership Education and Development (LEAD) Program, a nonprofit organization that focuses on developing high potential youth of diverse backgrounds into high achievers

Exhibit 1: Real estate investor ethnicities



Source: Zippia.

Exhibit 2: Real Estate Exchange 2021 Program

Sessions & timelines	Participating university
Session I (June 21–July 2)	MIT Cornell University New York University University of Miami
Session II (July 12–July 23)	Harvard University Howard University Roosevelt University Marquette University Southern Methodist University

and responsible leaders. LEAD refers to their high school student program participants as 'scholars,' symbolizing their academic achievement.

In the summer of 2019, REEX hosted its first cohort of scholars. Nearly 150 male and female scholars were chosen from underrepresented populations, of various socioeconomic backgrounds and with a minimum grade point average of 3.25. Offered in two-week intervals, REEX 2021 was held at nine universities in two separate learning sessions (see Exhibit 2). As of August 2021, REEX has an alumni network of nearly 400 scholars.

Learning through Real Estate Exchange (REEX)

REEX kicks off its programming through the use of the UrbanPlan for High Schools curriculum model, created by the Urban Land Institute. UrbanPlan is 15 class hours of the curriculum, where students form development teams to respond to request for proposals for the redevelopment of a blighted site in a fictional community. Each team member assumes a role: finance director, marketing director, city liaison, neighborhood liaison or site planner.

Through UrbanPlan, REEX scholars are introduced to the development/redevelopment process through a master class series of learning over a two-week period. The master class is comprised of five elements: (1) land use, (2) capital, (3) and (4) real estate finance, two levels of learning, and (5) exit strategy. Complimentary to the UrbanPlan and master class, each university partner inserts an independently structured, academically rigorous form of study linked to the five elements.

To add a practical component, scholars are positioned to actively engage industry professionals — who are developers, brokers, lenders, property managers and entrepreneurs — and participate in actual development project site tours. Paired with professionals to serve as coaches, development teams are mentored through development/redevelopment presentations. Scholars, at the end of the learning program, formally walk through their project presentations for a panel of industry professionals.

A pathway opportunity for employers

By way of specialized programming like REEX, opportunities exist for employers. The REEX program serves multiple purposes across the diversity, equity and inclusion landscape. For hiring managers challenged with increasing diversity of talent, an introductory pathway program like REEX is a viable option for change. For example, involvement with REEX, in the form of summer internships, can significantly transform the real estate industry. Similarly, for colleges and universities, REEX is also an alternative recruitment vehicle, exposing undergraduate admissions professionals to an otherwise lesser considered nationwide population of high achieving students of color, often underrepresented by leading colleges and universities.

While REEX provides high quality learning for scholar participants, a reasonable next step to advance REEX programming for underrepresented populations is to create work-based internships for scholars to continue their learning.

Conclusion

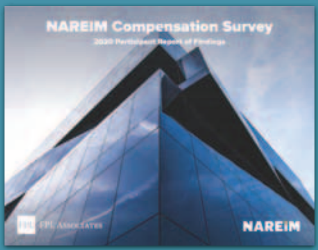
Research shows a direct correlation exists between real estate and generational wealth for families in the US, albeit through private home ownership, or by multifamily or commercial property possession. Sadly, research further informs how disparities across ethnic backgrounds exist when considering the various forms of real estate ownership and individuals participating in the industry as professionals. Changing an industry requires effort and a plan of action. Numerous possibilities exist for how leaders can reshape the real estate industry. Participation in REEX is one possibility. ◆

For readers interested in learning more about how to participate in REEX, as a mentor/coach to scholars, by offering financial support or sponsorship, or by providing an experiential learning opportunity to a scholar, contact the REEX leadership team at https://www.reexprograms.org/.

R. Kelly Cameron, EdD is the Career Development Officer and thesis lecturer with the Center for Real Estate, Massachusetts Institute of Technology.

NAREIM

Benchmarking research



Compensation Survey

Released in October

Produced in collaboration with Ferguson Partners

More than 300 pages of individual position compensation reports, including functions within:

- Executive management, accounting, asset management, capital markets, corporate marketing and communications, due diligence, engineering, environmental, finance, human resources, investor relations, capital raising, leasing, legal and compliance, portfolio management, property management, risk management, technology, transactions, valuations, debt and REIT securities.

DEI Survey

Released in December

Produced in collaboration with ANREV, Ferguson Partners, INREV, NCREIF, PREA, REALPAC & ULI

First corporate benchmark for DEI metrics and best practices in commercial real estate. Covers more than 44 pages of individual data points, including:

- Gender and ethnicity composition by seniority and job functions.
- Best practice metrics relating to the implementation of DEI strategies and initiatives across investment management organizations, including issues relating to ownership & staffing, accountability, tracking & measurement, retention & recruitment, external partnerships and activities, pay equity & transparency.

Global Management Survey

Released in September

Produced in collaboration with Ferguson Partners

Covers more than 65 individual data points of benchmarking, including:

- *Capital raising and AUM:* Net and gross AUM growth capital raised as percentage of year-end AUM and investor concentration ratios.
- *Organizational metrics:* Headcount growth, employees per $1bn AUM, employee breakdowns per function, per function and seniority, portfolio manager workloads (per account, psf, per GAV) acquisition officer workloads, asset manager workloads, outsourcing, average turnover, size and composition of executive committees and workloads and deal flows.
- *Financial metrics:* YOY financial performance, EBITDA (pre- and post-bonus) margins, bonus pools, revenue and expense breakdowns.

Defined Contribution Survey

Coming in October

Produced in collaboration with Defined Contribution Real Estate Council

This report will include:

- Capital raising volume and distribution strategies, enterprise metrics including staffing and organizational best practices, vehicle structuring and deep dives into product-specific metrics, such as investment strategy profiles and liquidity.

For more information, please visit www.nareim.org

Due diligence *in the* VIRTUAL era

Despite Covid restrictions, 'walking the ground' remains a critical part of the due diligence process. New technologies and practices have enabled managers to push on.

By Anh Duc Tran, Barclay Fellow

I had the invaluable opportunity to attend NAREIM's Executive Officer Meeting as a Barclay Fellow in October 2020. The Covid-19 pandemic was raging on and our meeting, like many others, was held virtually. A major part of the discussion centered around coping with the disruptions brought on by the pandemic, including restrictions on travel and in-person presence.

As 'walking the ground' has been a critical, tried-and-trusted part of the due diligence process, how would managers navigate the new constraints to ensure they understand the assets? Would any new practices and innovations become a permanent part of due diligence? I spoke with four NAREIM members from major investment firms to hear their perspectives, and a few interesting themes emerged from our conversations.

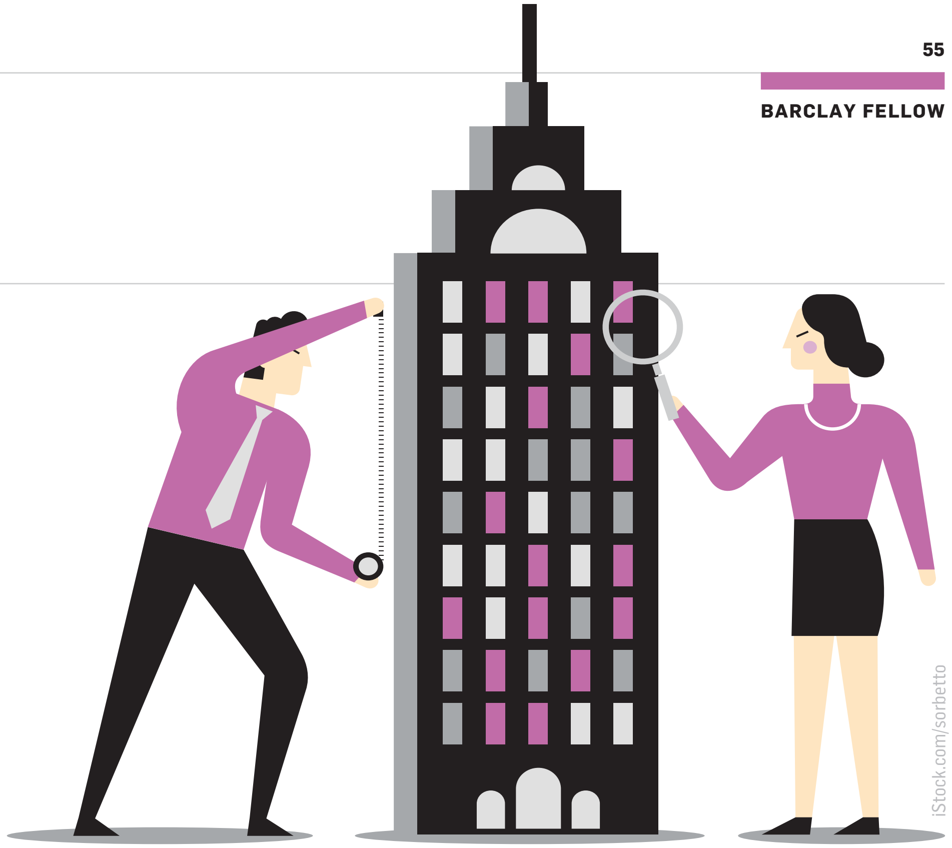
There is no substitute for walking the ground

All four interviewees stressed the importance of touring the properties in person as their teams tried to maintain on-the-ground visits whenever possible. Although the frequency and number of employees per visit were inevitably reduced, firms tried different ways to conduct critical property visits, such as relying on employees in the local markets or driving to the sites instead of flying. Cost efficiency was a consideration, but secondary to maintaining due diligence quality.

Virtual tours were seen as complementary, not as a substitute, to in-person tours. Firms leveraged brokers, partners or other local contacts to film videos and conduct virtual tours, usually before the in-person visit. The virtual tours were employed to a varying degree: some firms used virtual tours more extensively than others. The interviewees noted that virtual tours were likely to remain as part of the due diligence process going forward.

Increasing importance of having strong partners

Uncertainty in many markets, coupled with limitations to in-person visits and meetings, encouraged many investors to focus on existing partnerships. This resulted in more deals being done off-market, as shared in NAREIM's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Acquisitions Meeting in January 2021. Investors with long-term experience in markets and strong existing partners were able to push forward with many projects in 2020, as strong relationships became an even bigger advantage to access quality deals. Efficiency was an additional advantage — an interviewee noted that having partners who understood their due diligence process and requirements eliminated a lot of inefficiencies and extra hours.

While not as common, several interviewees noted how they were looking to bring in new partners to their platforms. These include brokers, property managers and, for firms looking to expand in specialist sectors, expert life science and data center operators. One interviewee shared that her team reviewed their approach to underwriting and selecting partners while reflecting on how to attract quality partners to pursue more deals with them. The inability to meet in person was not an obstacle — an interviewee noted that there was no issue for his team to connect with new vendors and investors through phone calls or video conferences.

Increasing focus on data management and adoption of technologies

Another common theme in our conversations was the increasing focus on data management. Firms are collecting and managing more information on each due diligence process; an interviewee mentioned how his team dived much deeper into prior documentation, reports, 3D models and interviews with vendors and engineers to cover for the limitations in physical touring.

The pandemic increased the urgency for firms to develop a stronger data integrity standard and a more efficient data management system. Some interviewees shared that their teams had been working on upgrading internal data systems before and during the pandemic, with an eye towards leveraging predictive analytics and a deeper statistical approach to drive better decision-making. One interviewee believes that more data analytics initiatives will be pursued as industry players move on from pandemic uncertainty. Data security also came up in one conversation as a critical consideration for remote access, and the interviewee noted his firm was suitably prepared due to their experience in collaboration across many regional offices.

Besides data sharing and management tools, the pandemic hastened the development and adoption of new technologies, especially those that enable remote working. Drone technology and 3D modeling were mentioned several times in our conversations, in addition to more widespread adoption of virtual tours.

Covid-19 also raised the bar for air filtration and HVAC technology, particularly air freshness and ventilation quality. Health and wellness technologies and initiatives emerged as a key area during both the due diligence and asset management processes. Two interviewees from big asset management platforms noted that their teams were working to adopt and roll out green technologies across their portfolios and to newly acquired properties.

Conclusion

The Covid-19 pandemic provided an opportunity for reflection and review. While walking the ground remains a critical part of the due diligence process, new technologies, like virtual tours, data sharing and management tools, have been adopted and facilitated due diligence. Many of these tools will likely stay as complementary aids to the core due diligence process. ◆

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