SUMMIT

AFIRE

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AFIRE

AFIRE IS THE ASSOCIATION FOR INTERNATIONAL REAL ESTATE INVESTORS FOCUSED ON COMMERCIAL PROPERTY IN THE UNITED STATES.

Established in 1988 as an essential forum for real estate investment thought leadership, AFIRE provides a forum for its senior executive, institutional investor, investment manager, and service provider members to help each other become **Better Investors, Better Leaders, and Better Global Citizens** through conversations, research, and analysis of real estate capital markets, cross-border issues, policy, economics, technology, and management. AFIRE has more than 200 member organizations from 24 countries representing approximately $3 trillion USD in assets under management.

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NOTE FROM THE EDITOR

By **Benjamin van Loon**, Communications Director, AFIRE

Disruption has its own way of accelerating change.

Like most publications, Summit works on a schedule with a long lead time, and when we started soliciting content for this issue at the end of 2019, we did not expect that within a few short months, the world would face a once-in-a-century health pandemic and an economic subsidence unprecedented in the modern age.

However fortuitously, many of the submissions we received for this issue focused on a singular issue more suited to our situation right now than any of us could have planned: Innovation.

Since the burst of the .com bubble, the idea of innovation has been dissected, deconstructed, and disambiguated by entrepreneurs, business leaders, and academics, but it's rarely applied with any measurable success. And for the world of real estate in particular, historically slower to adapt than other industries, many of the pathways towards innovation have been appreciated more in theory than in practice—at least until today.

As we've learned from other large-scale crises in history, disruption has its own way of accelerating the changes sought by the otherwise familiar theses of innovation. This idea forms the focus of our introductory article in this issue, from AFIRE's CEO, Gunnar Branson, while the articles from contributors at MetaProp (page 26), Ferguson Partners (page 12), and KPMG (page 16) each speak in more detail about what innovation means in practice. And with change and innovation as backdrop, the call to ethics from AFIRE member Profimex (page 34) is especially pertinent.

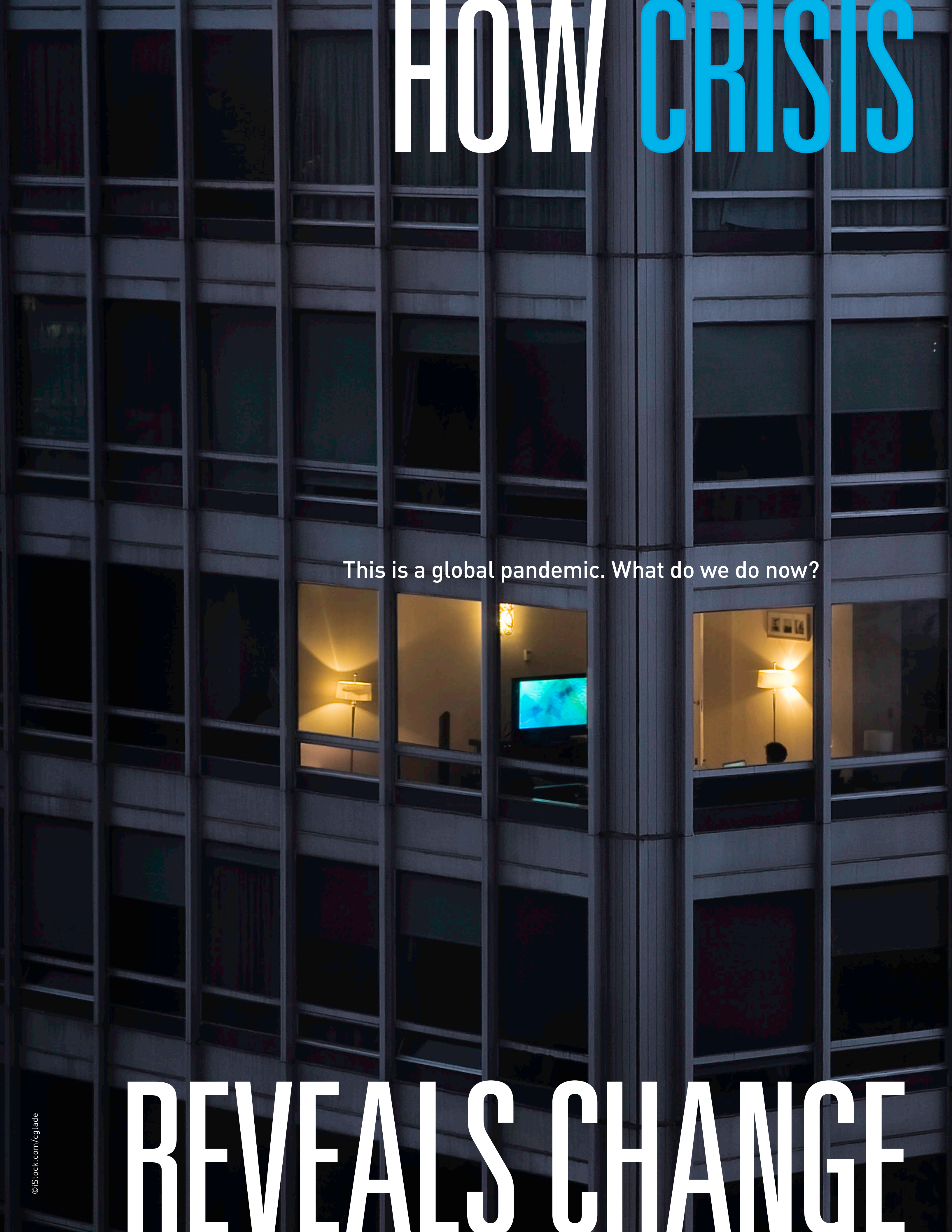
Aegon (page 36) provides an outlook for CRE prospects in the year ahead, while Yardi (page 20) visualizes a new way to understand and quantify risk at the city-level, in what could be an increasingly useful rubric for the economic challenges ahead. Our summaries of the AFIRE Data & Technology (page 8) and Tax & Regulatory (page 30) events from the end of 2019 also reveal the prescience of our members in planning for the future.

Finally, the issue concludes with a historical case study of Hudson Square in New York (page 40), mapping out how neighborhoods change over time, and the intentions that make those changes happen.

Some of the submissions we initially received and greenlighted for this issue had to be tabled due to the current crisis (though will likely reappear later on afire.org or in a future edition), but we are happy with this final result and the snapshot it provides of where we are now, and where our industry is going next.

HOW CRISIS REVEALS CHANGE

This is a global pandemic. What do we do now?



HOW CRISIS REVEALS CHANGE

By **Gunnar Branson**, CEO, AFIRE

Governments, businesses, health organizations, and medical professionals are doing their best to protect and heal, and it has become abundantly clear that every sector and every person has an important part to play in this crisis. In the immediate term, real estate investors around the world are doing what needs to be done to protect their employees, tenants, and partners. Whether it's helping employees adapt to working from home, finding ways to make buildings safe, or renegotiating a lease or debt agreement to adjust to a new economic reality, leaders in our industry are focused on getting through the white water rapids of this crisis, where every corner brings a new challenge, and staying afloat takes precedence over anything else.

1918 1920,s

5th Avenue and 42nd Street, New York, ca. 1910

5th Avenue, New York, ca. 1920

But what happens after the immediate crisis passes?

Pandemics can dramatically change society, the economy, and governments–especially if they alter the way people have to live and work for longer than a few months. If that is the case with COVID-19, what will that change look like, and what should investors do about it? So far, the crisis has been unpredictable, as each day presents new challenges.

Is it even possible at this point to see farther into the future beyond the next 24 hours?

It might be. How the crisis itself plays out on a daily basis may be difficult to predict, but the changes that come after today may already be visible, if one knows where to look.

Consider the world before and after the 1918 flu pandemic (often referred to as the Spanish flu pandemic, even though there is no medical consensus to support its origins in Spain). As an example of how disruption accelerates change, it's possible in an examination of 1918 to see how change was revealed, rather than initiated, by the crisis itself. During the crisis, life dramatically changed everyday life changed dramatically around the globe, ultimately leading to the loss of more than 50 million lives. Social distancing, the shuttering of restaurants and bars, limitations on travel, and fast improvisation of hospital beds and treatment centers were as familiar then as unfortunately they are today.

Once the danger of the pandemic ultimately passed in 1920, the world was very different–and fortunately it was not a world of permanent social distance and obsessive surface disinfection. Instead, the 1920's were a time of tremendous economic growth, technological change, and quite a bit of social change at very close range throughout the world. The changes of the "Roaring Twenties" were dramatic–but not unforeseen.

Consider Manhattan after the pandemic. It was a very different place than before the flu struck. By the 1920's, automobiles became the dominant force of the streets, rather than pedestrians or carts and carriages. Immigration from overseas and migration from rural areas drove an increase of urban density. (Manhattan's resident population increased by more than a million people between 1920 and 1930) The city also saw more international capital flows, financial jobs, and increased sophistication in manufacturing activity than ever before in history. A young person in the 1920's would barely recognize the world ten years earlier. Even clothing turned the page from nineteenth-century corsets and top hats, to a more streamlined twentieth-century look.

But those changes and many more were presaged by activity in the 1910's. For example, New York's population was already growing at a rate of one million per decade before the pandemic. And while the automobile become de rigueur in the 1920's, Henry Ford started mass producing Model T's in 1914. The social changes at the beginning of the decade accelerated the ubiquity of automobiles, and in the process, dramatically reshaped the flow of urban life. New York became a capital for global capital and trade in the 1920's, but President Woodrow Wilson (elected in 1913) and others were already laying the foundation for those changes well before then with the League of Nations and global trade activities. Also, in 1914, Thomas J. Watson became the president of the Computing-Tabulating-Recording Company, which later became International Business Machines (IBM) in 1924. Watson reportedly claimed that freer international economic relations meant world peace, and that if goods did not cross borders, armies would.

THE CHALLENGE IS

Other new technologies developed before the pandemic, such as air transport, radio, and film, were also adopted broadly afterwards. Suffragettes fought passionately and valiantly for equal treatment in western democracies in the decades immediately before and after the turn of the century, then finally won the right to vote in the US in 1920. Social norms around gender were transformed in the 1920's, and continue into today (albeit slowly and awkwardly, at times).

All the changes were in process for years before the pandemic. Like all crises, including wars or economic downturns, this kind of disruption forces individuals, businesses, and societies to re-evaluate everything. Behaviors and activities from the past can be examined and, in some cases, abandoned. Why continue with horse and carriage when cars are cheap and reliable? Why constrict movement with corsets? Why live the same way as in the past? Why not embrace the new ideas developed over the past few years, and abandon what doesn't work anymore?

The resetting of life after a crisis reveals the future by removing the need to continue the ways of the past. So, as one considers today's COVID-19 pandemic and its aftermath, it is helpful for investors to look carefully at the world as it used to be in the past (2019) to understand what may happen next by asking:

What elements of our collective lives are people questioning now, and how might they abandon old behaviors for new?

In the last couple of months of this crisis, there has been a lot of discussion about the potential demise or fundamental re-design of urban density, international travel, infrastructure, supply chains, retail, co-working, and officing, but there may be cause to carefully consider any predictions. Certainly, working and living close together doesn't make sense in the middle of a pandemic–but this will likely pass. Even if connecting in person is delayed for a year or more, people will congregate again–at least, that is what they have always done throughout recorded history. The question shouldn't be, "what works today?" but "what will work after the crisis is over?" In the next decade, it's not difficult to imagine a twenty-first century version of the Roaring Twenties.

So, what are the elements of our collective lives people are questioning? As white-collar workers are mostly working "virtually" from home through this crisis, many might be wondering exactly what they do in homes and offices, and if the requirement to travel hours a day to sit in an office every single day at the appointed time really necessary. As the world emerges from the crisis, it is possible that many will develop a different relationship with living and working spaces and find ways to do both within a smaller geographic area, or focus travel on the most productive uses. Those people used to travelling by plane every Monday morning might be asking, "Do I really need to do that every week?"

WHAT

WILL WORK ?

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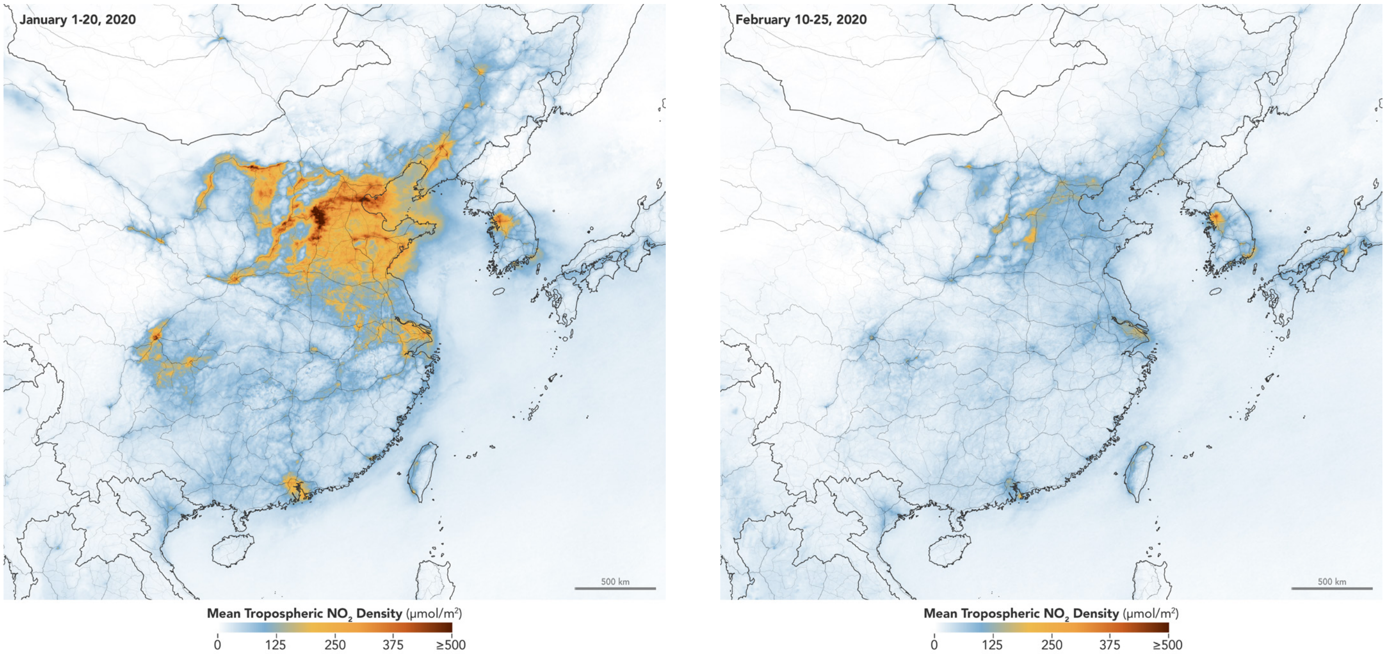
NASA Earth Observatory comparison of nitrogen dioxide (NO2) emissions and pollution monitoring over Wuhan, China, January 1 to February 25, 2020 – before and after COVID-19-related lockdowns



At the same time, technologies developed in recent years, whether it's more efficient robotic manufacturing, renewable energy, or AI, present an opportunity to move away from carbon-intensive global supply chains and old forms of energy generation. Does a single pair of jeans need to be manufactured in 15 countries before it shows up in stores? The satellite pictures of China's clear skies and views of the Himalayan mountains from the city of Jalandhar in India for the first time in decades certainly pose an important question for climate change: can part of the carbon burning problems related to an outmoded concepts of what people do and where they need to be every day? Can photos like these meaningfully change the world's efforts to mitigate global warming?

With new manufacturing technology already developed in the last ten years, does the world really need or want such elaborate global supply chains? Does it make sense to build another coal-fired power plant when new batteries and solar panels can potentially provide better energy at a lower cost? In the last month, major cities around the world are experiencing the clearest skies they've seen in decades as the daily burning of fossil fuels in cars has been reduced by half. Does the world need to continue with the internal combustion engine at all? In the 1920's, horses became a novelty while cars became the standard. Could the same kind of change happen for electric vehicles in the 2020's?

There might be even more demand for flexible office space, designed primarily for meeting with other people in person or grabbing a desk between meetings that were developed in the last ten years. Sharing resources, either through co-working, co-living, and alternative hospitality schemes such as Airbnb could accelerate in the future. Manufacturing, storage, and logistics assets closer to the population centers of consumers could increase far beyond what has been seen so far. Alternative energy production may likely explode in growth as the unpredictable environmental, political, and economic costs of continued carbon-based energy sources far outstrip the benefits.

There's no question that a photo of midtown Manhattan will look very different in January 2025 than it looked in January 2020, but in what ways? All the changes for that future photo have already begun to occur—many happening right in front of our eyes (while we often struggle to see them). The question investors need to ask today is, what old things will be cast aside after this period of crisis, and what new things should we begin to embrace?

IN THE FUTURE

Credit: NASA, https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china

DATA, TECHNOLOGY, AND MINING THE POSSIBILITIES OF REAL ESTATE

By **Benjamin van Loon**, Communications Director, AFIRE

INSIGHTS FROM THE AFIRE DATA & TECHNOLOGY SUMMIT

"However far modern science and technics have fallen short of their inherent possibilities, they have taught mankind at least one lesson: Nothing is impossible."

– Lewis Mumford

Known for his groundbreaking studies of urban design and technological culture during the rise of the modern city into the mid-20th Century, Lewis Mumford was often an optimist about the influence of technology on human advancement. But he tempered his positivism with a balanced skepticism about human agency and the way cultures and industries evolve through technology.

Technology rarely generates optimal outcomes when not tempered by imagination. Certainly nothing that can be imagined is impossible, but it's our job as business and industry leaders to ensure that the technology we use serves our needs and gives us a competitive edge—and not the other way around.

GOING FORWARD

Very soon, real estate is not going to only be about real estate. Real estate is going to be about driving performance and deriving decisions from data.

With this understanding of technology as a backdrop, AFIRE members and tech industry leaders recently gathered in New York for the AFIRE Data & Technology Summit to discuss what it means to use technology to suit our needs. Frequently, the discussion found itself in much the same place as the real estate industry—fighting a decades-long struggle to keep technological pace.

"Very soon, real estate is not going to only be about real estate. Real estate is going to be about driving performance and deriving decisions from data. Unfortunately, the real estate industry doesn't necessarily have—at least right now—the appropriate skills required to take this on. And that's a real challenge."So said Elisabeth Troni, Global Portfolio Strategist for CBRE Global Investors, in her conversation about the future of the real estate industry. Speaking personally about her work, Troni suggested that the cultural transformation necessary for the industry to emerge as a leader (and therefore, as a talent magnet) is a continual process, and one that requires the proposition of investment in data and technology solutions be framed in terms of business risk, rather than HR or marketing pushes towards being perceived as cutting-edge.

Only through a thoughtful definition of innovation can today's real estate leaders master a growing universe of data that has propelled the so-called disruptors in other industries to the forefront of commercial leadership in the twenty-first century. The imagination required for innovation ultimately makes for smarter strategies suited to understanding risk and enhancing the vitality of our investments while simultaneously serving the goals of our businesses and the investors, employees, and communities we serve.

INNOVATION SHOULD BE MORE THAN A BUZZWORD

While grand calls for disruption and innovation have become pap for marketing campaigns and conference keynotes around the world, such vocabulary is often deployed without scrutiny, thereby obfuscating pathways towards practical solutions grounded in innovation.

For concretizing innovation for real estate, it all comes down to data and discovery, said Peter Skarzynski, Managing Director for Deloitte Consulting LLP and member of the leadership team for Doblin, a Deloitte business that helps organizations find human-centered solutions to business problems.

"It is helpful to have a shared and agreed upon definition of innovation—here, it's the creation of a new, viable business offering. Let's unpack this definition: By viable I mean creating value for your customers and your enterprise; and ideally going beyond products to platforms, business models, and customer experiences," said Skarzynski.

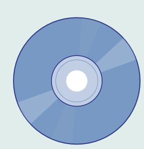
Skarzynski's work at Doblin is informed by the organization's Ten Types of Innovation® framework, which attempts to extract innovations through rubrics of enterprise and system analyses, service and product performance, and customer or end-user experiences. Innovation can only happen when the full framework is leveraged.

The temptation to oversimplify innovation is where many organizations lapse in implementation, Skarzynski said. "For digital innovation, you need to think about data and experiences, because that's going to show you how you can deliver an experience."

Elegant integration requires holistic thinking across an organization's entire business model, relying less on outside intervention and more on maximizing extant resources to arrive at what Skarzynski calls "sophisticated innovations," which use many different types of simple innovations to transform how a business and its people deliver value.

When it comes to real estate, we don't need to look very far for extant resources. We call them data, and like any rich resource, they can be customized, narrativized, and analyzed to tell us stories about the past, paint portraits of the present, and provide glimpses of the future. By some estimates, humans will be producing 463 exabytes (1EB = one quintillion bytes) of data every day by 2025 (That's more than 212 million new *Godfather* DVDs created every day.)

463 EXABYTES

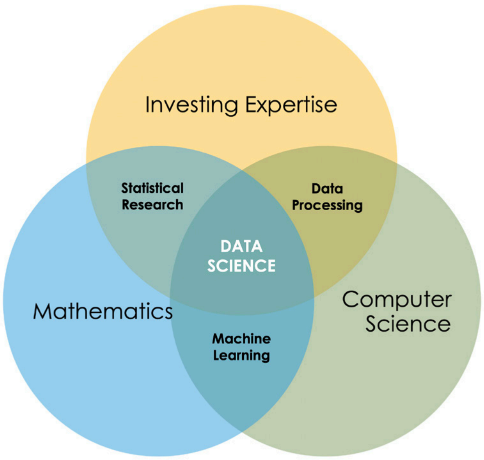


Amount of data estimated to be produced every day by 2025. (That's more than 212 million *Godfather* DVDs created every day.)

SO... HOW DO YOU PUT YOUR DATA RESOURCES TO WORK?

Learning how to wrangle and command the growing universe of data available to real estate investors represents the new frontier of industry leadership—data science.

As a formal practice within and beyond real estate investing, data science sits at the intersection of investing expertise, mathematics, and computer science and integrates aspects of statistical research, data processing, and machine learning to expand business intelligence through data-based decision-making.



Data science requires skills that cut across multiple fields—academic, technical, and practical

Courtesy of Lionstone Investments

This interdisciplinary approach was the logic behind the formation of Lionstone Investments, said Bryan Sanchez, Lionstone's Chief Investment Officer. "We were founded on a unique proposition that you actually could make better decisions using data. That was a novel idea at the time, but it was at the beginning of a revolution in our industry where we weren't simply using data to validate our intuitions, but instead learned how to use it to guide our decisions," Sanchez said.

To put data to work first requires a shift in thinking; a willingness to explore varied statistical analyses, and a deliberate decision to trust in and be guided by data-derived intelligence, rather than merely using naïve semblances of the science as a confirmation tool.

Extending this logic to a larger scale, Phoebe Holtzman, CEO of Live XYZ and former Urban Tech Researcher at the MIT Real Estate Innovation Lab, said, "Our future is in cities, and to understand the future, we need to understand how data and technology are changing cities. It's not just about looking at data points and how those relate to capital, but how these data truly relate to decisions made about the built environment."

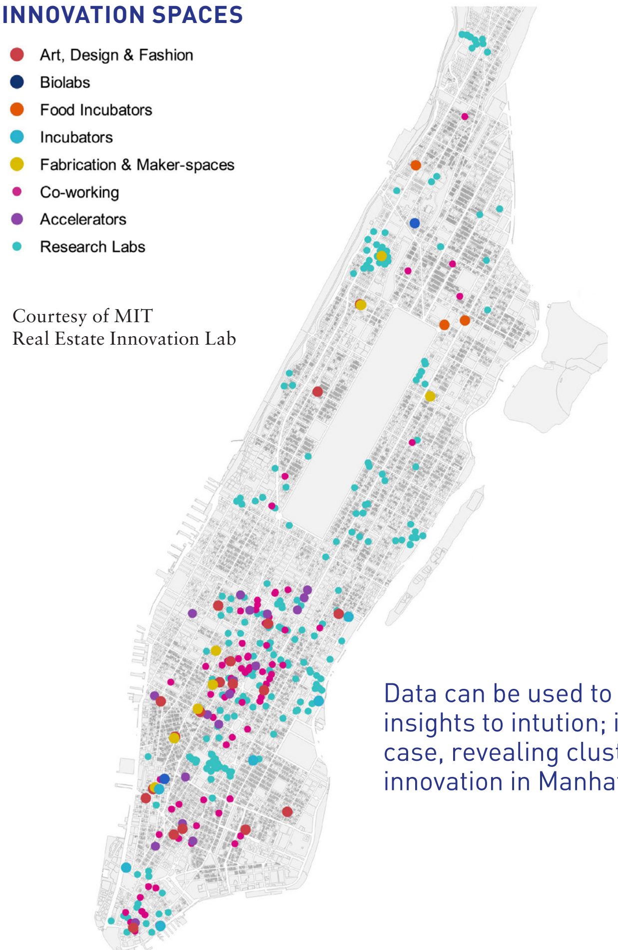
As an example, Holtzman and Sanchez discuss the phenomena of co-working spaces in Manhattan. Powered by a cultural shift in how people work, compositions of premium office space have shifted in priority from square footage to desk availability, and units of time have shifted from multi-year leases to monthly or daily contracts. Because coworking trends are so contingent on extrinsic attitudes, it's beneficial for coworking investors and owners to leverage all available data to make more informed decisions.

"While coworking is not a new product, it's a disruption in that it changes how we actually think about space," Holtzman said. "Aggregate economic and demographic data help us visualize cities and have a conversation about what the demand is for these spaces. It helps us see who are the industries involved, and what is the capital that's flowing in."

The ability to aggregate data from across existing assets, including publicly available economic and labor data, capital markets, and proprietary resources, Sanchez added, has been combined with powerful and cheap computing power to create the conditions for an advanced analytics revolution. Applied in this way, "Data science can dramatically enhance decision making in investment management by increasing objectivity and reducing human bias," Sanchez said. "Additionally, it makes it possible for us to use our time and energy on creating actionable insights rather than merely gathering data."

In other words, data science augments human judgment, but does not replace it.

INNOVATION SPACES



Courtesy of MIT Real Estate Innovation Lab

Data can be used to bring insights to intution; in this case, revealing clusters of innovation in Manhattan.

How will our internal processes and metrics change as we embrace data analytics as a way of life?

How are we going to clean up our data and analytics enough to make something better?

How should we imagine what's possible?

IS PROPTECH MOMENTARY, OR MONUMENTAL?

As an extension (and monetization) of data science, property technology (proptech), which is designed for the real estate industry, represents the current wave of augmentation for the intuitions of real estate investing.

From a venture capital perspective, proptech follows on the heels of fintech in terms of investment trends and opportunities. This is largely because proptech covers a domain of platforms and technology solutions that are often adjacent to real estate, including construction, facility management, geographic information services (GIS), tenant management, and other increasingly automated services. On one hand, according to Safi Aziz, Senior Associate of Investor Services for MetaProp, this diverse range of proptech solutions means that the industry can be organized and manipulated to truly meet the data and technology needs of real estate investors. (See also: "Intelligently Financing Tech-Enabled Real Estate Concepts," page 26)

"There's a lot of chaos in proptech," Aziz said. "There are more than 5,000 companies currently active. Real estate firms need to start absorbing that fact and need to create a methodology of how they're going to work with these companies to command the vast world of data available to them and digest it to suit their needs."

According to Propmodo, a media brand that focuses on technology and innovation in commercial real estate and the built environment, total investment in the sector has surpassed US$20 billion, representing a nearly 40% increase in the past three years. Though much of the money comes from venture funding, such investment volume indicates a shift away from proprietary software and data analysis to more integrative, intelligent, cloud-based, and scalable solutions. Smartly deployed, such solutions can aid the diverse needs of asset management and overall building performance, which can support broader investment intelligence—but only if implemented with a deliberate data strategy (which can must ultimately be guided by skilled and qualified teams of real people).

"In terms of data strategy, we have come a long way in a short amount of time," said Steve Coutts, Head of Data Partnerships for Cherre (pronounced "cherry"), a real estate data startup that provides a platform as a service (PaaS). "Ten years ago, we were still only using data for declarative and descriptive analytics, but not to inform our decisions. Today, as the conversation shifts towards predictive analytics, we need to use those tools that help us collect, resolve, and connect data in an automated way, and then to present that data to people who can turn it into action."

Unfortunately, the transition from automation to action is where many aspects of the real estate industry lag behind leaders in other industries. Because real estate is often a long-term asset, the urgency to modernize through technology has been slow to advance in the industry—an issue exacerbated by the competition for qualified talent, which is otherwise attracted to the higher compensations and more engaging challenges offered by other sectors.

Proptech can offer a way forward, and is increasingly impossible to forego, but what presents outwardly as a technology modernization challenge for organizations may actually be symptomatic of broader cultural issues that can only be addressed through systematic change.

TO GET WHERE YOU WANT TO GO, BE HONEST ABOUT WHERE YOU ARE

If a firm active in the real estate industry would benefit from allocating extra resources to proptech and data science, but leadership opposes such change, there is real risk associated with relying on the old way of doing things—especially within a market increasingly expanded through data.

"One of the biggest challenges of the data-driven age is to compete in data-driven work. For the real estate industry, in particular, our data observations are relatively rare and heterogeneous. Data and insights can confer distinct informational advantages. However, much of the real estate industry sits with its data in pools rather than lakes. One of the key hurdles around extracting value from data is that the real work needs to be done in time spent formatting and structuring proprietary data for a common purpose," Elisabeth Troni said. "It may not sound interesting to some decision makers, but if we want to transform the way we make decisions, we need to spend a lot of time structuring the data. This is absolutely critical."

Going forward, leaders in the industry need to ask how we should change our own assumptions about technology and tools. How will our internal processes and metrics change as we embrace data analytics as a way of life? How are we going to clean up our data and analytics enough to make something better? How should we imagine what's possible?

Technology gives part of the answer.

We need to work together to find the rest.

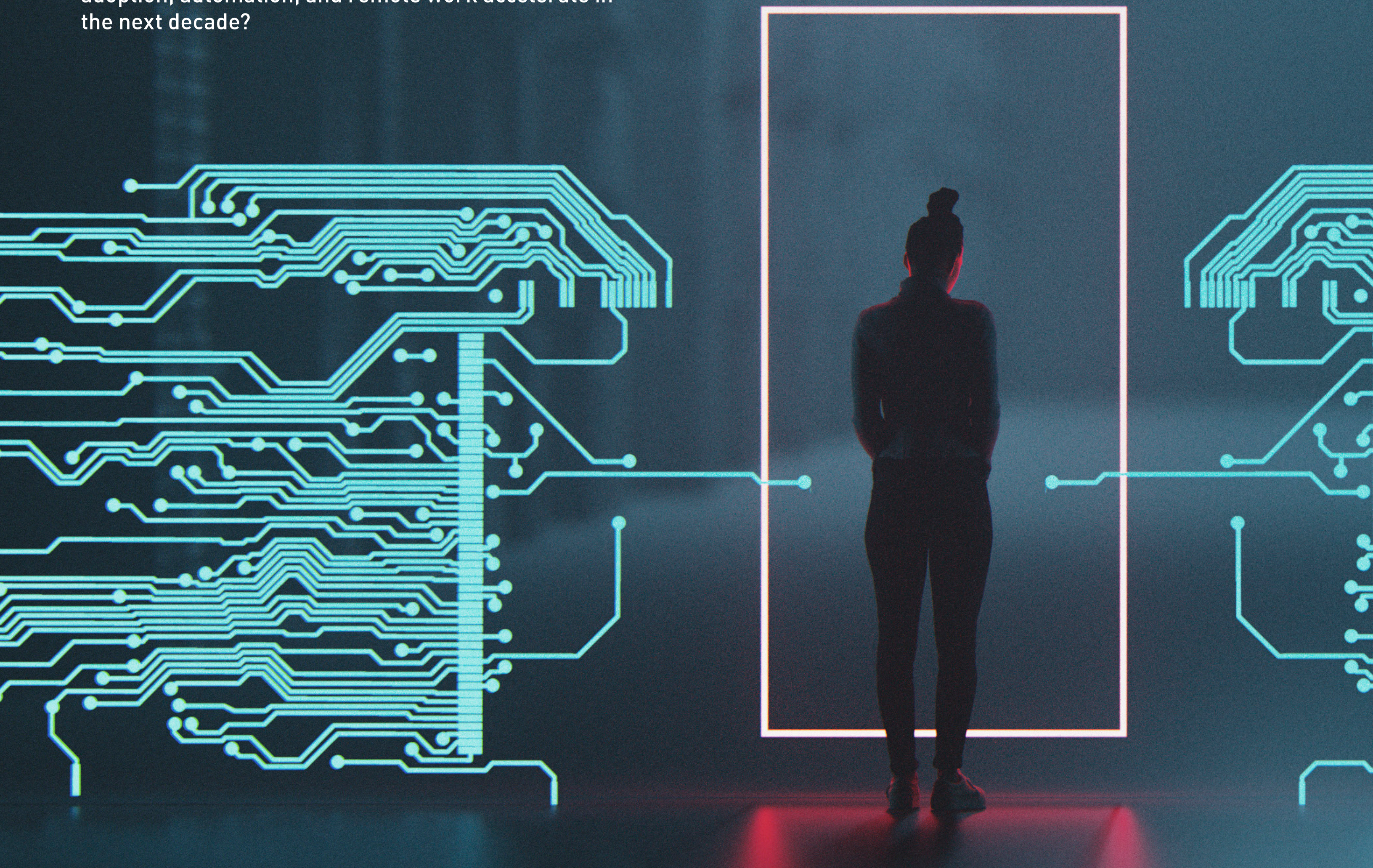
INTELLIGENTLY

TECH-ENABLED REAL ESTATE CONCEPTS

By Zach Aarons, MetaProp; **Safi Aziz,** MetaProp

The emergence of the most disruptive and potentially dangerous pandemic in more than 100 years has thrown the entire real estate sector into a state of uncertainty. Both the utility and value of the global real estate market has experienced an unprecedented shock in the beginning of 2020.

The current disruption in the markets is causing real estate professionals to question which direction the industry goes after the community has weathered this dislocation. Does the way people consume and transact real estate fundamentally change because of the impacts of COVID-19? If so, do trends like software adoption, automation, and remote work accelerate in the next decade?



FINANCING

Many real estate investors who previously focused exclusively on brick and mortar are considering investing in PropTech companies, which are looking to imbue technology into real estate processes to make the life of the professional executing these tasks more efficient and pleasant. Technology companies such as VTS, for example, help facilitate communication between the leasing broker and the landlord, and also provide insights into key lease dates for the landlord. These Software as a Service (SaaS) companies charge landlords a subscription fee to use the software. SaaS businesses, and software marketplaces such as Airbnb, are typically funded with venture capital equity.

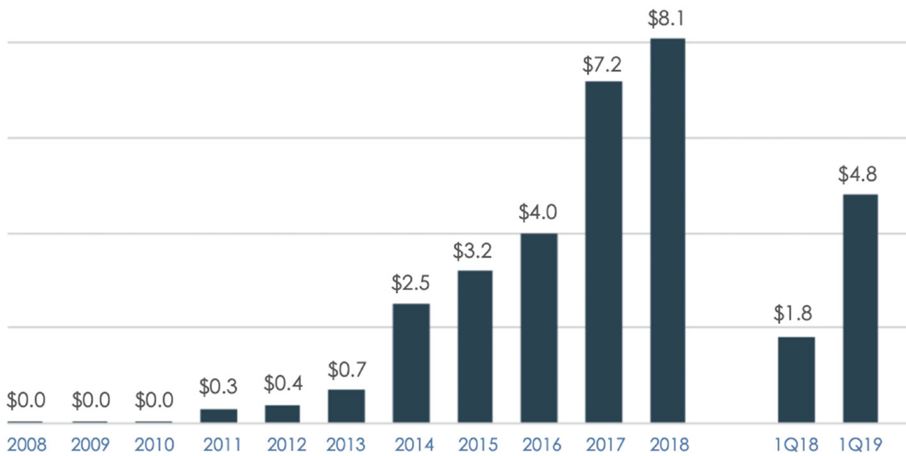
Additionally, in the last decade, a staggering amount has been deployed into tech-enabled real estate businesses such as WeWork, Sonder, and Opendoor, which manage and operate physical real estate. How should these businesses be categorized? Are they merely old-fashioned real estate businesses in a shiny new candy wrapper, or is there something new and innovative about how they operate?

These companies seek to leverage technology in various parts of their business, streamline manual processes, and focus on user experience to surpass traditional real estate returns. These businesses “grow” by expanding their square footage and bringing more physical users into that space either on a subscription basis, such as co-working, or a single transaction, such as I-Buying. Growing square footage supply has historically been done either by using balance sheet capital to acquire square footage or through management agreements.

Recent demand shocks created by the impact of COVID-19 in the hospitality, office, and retail sectors have left some of these companies with empty spaces. Companies that raised large amounts of venture capital equity have been forced to make deep personnel cuts to try to weather the storm.

©iStock.com/gremlin

PROPTECH VENTURE CAPITAL FUNDING, '08 – '19



Sources: CRETech, Venture Scanner, GCA Advisors, Pitchbook, CB Insight, And KBW Research. Data averaged across listed sources.

For both business models, these startups raised a bulk of their capital from venture investors that have historically financed high-growth, high-margin software businesses and have the highest return expectations. This puts moderate-growth and capital-intensive tech-enabled real estate companies in a tough position when they receive capital from similar investors on similar terms. As we saw in the last decade, one of two scenarios have occurred:

1. The founding teams found themselves highly diluted before they could achieve scale, or

2. The firms that have sought to retain ownership have found themselves raising at extremely and unsustainably high valuations that may outpace their actual growth milestones.

For these real estate companies, neither scenario is ideal for their founders, teams, customers, or investors. Fortunately, there is a solution that involves you, the reader, to mitigate these conflicts in the next decade.

Company	Description	Total Funding
WeWork	Provider of shared workspace community and office services designed to create collaboration between entrepreneurs, freelancers, startups, and small businesses.	$15.64B
Sonder	Provider of a peer-to-peer home rental platform intended to help travelers book apartments, houses, condos, villas, and loft instantly.	$378.13M
OpenDoor	Operator of an online real estate marketplace intended to simplify home buying and selling.	$4.35B

THE NEW WAVE OF THE PROPCO/OPCO STRUCTURE

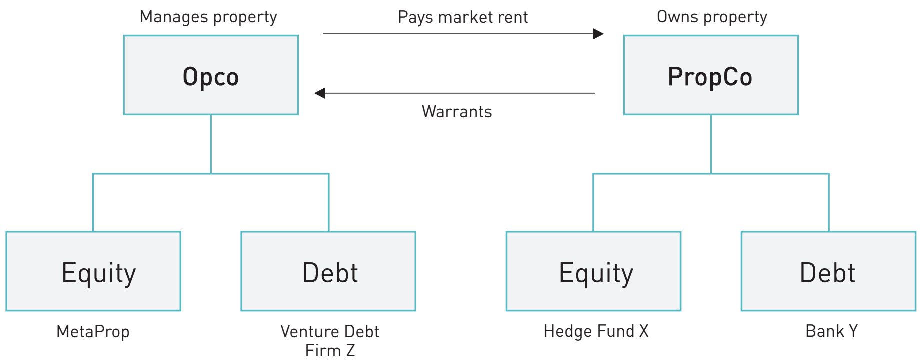
Businesses leading the way towards this solution are already actively separating their capital expenditure for the physical real estate from capital for their technology, brand, and people. This is commonly known as property company/operating company (PropCo/OpCo). In this structure, often used in the hotel industry, the PropCo owns the real estate asset, while the OpCo manages the real estate asset for its particular business model and pays market rent to the PropCo. For example, the vast majority of Four Seasons hotels around the world are managed by Four Seasons and owned by independent real estate investors.

There are three primary reasons the PropCo/Opco structure allows for scale:

1. More favorable financing terms for the PropCo allows for cheaper capital, which leads to higher operating margins for the OpCo. The real estate can also be used as collateral which improves its creditworthiness.

2. Increased access to capital allows for more inventory, at cost.

3. The PropCo purchases the real estate that the OpCo can operate quickly with increased autonomy.



ALIGNING INVESTOR INCENTIVES ALLOWS FOR SUSTAINABLE GROWTH

With a PropCo/Opco financing structure, we can more adequately align risk-return profiles and incentive structures for entrepreneurs, venture capitalists, and traditional real estate investors within these types of companies.

The PropCo is best financed more similarly to a real estate company, with a bank for the debt and a real estate investment firm for the equity. The OpCo is best financed more similarly to a software company by venture capitalists and venture debt for the technology, brand, and people. Below is an example of how the PropCo/OpCo would be financed:

The PropCo is commonly established as a warehouse line, with an LTV of 75%. On occasion, the OpCo will be required to invest up to 10% of the equity for the warehouse line, in order to have skin in the game. However, deals will be structured with varying degrees of OpCo financial participation. In exchange for taking the risk on an operator with unproven credit, the equity provider typically receives a varying level of warrant coverage in the OpCo. The debt provider will often receive a similar but lower level of warrant coverage than the equity provider.

With this model, each investor is aligned at a projected risk/return threshold that makes sense for their respective business model. The OpCo's balance sheet does not become burdened with expensive and dilutive venture capital. The company can raise one-tenth of the amount of equity capital as previously required, and therefore deliver early-stage venture capitalists a 10x return without having to carry multi-billion-dollar valuations. If the OpCo fails, the venture capitalist has limited their downside and not risked too large an allocation of that particular fund. Venture capital general partners and limited partners have a higher expectation of failure amongst a handful of companies within any given fund's portfolio. That is why most early stage venture capitalists will invest in 30-40 companies per fund.

The PropCo equity investor can obtain mezzanine debt-type returns from the cash flow associated with the real estate, along with upside equity warrant coverage in the operating business to sweeten the deal. Although the equity is still subordinated to the bank's credit, the PropCo investor can potentially enjoy a mezzanine debt type return while maintaining a first lien position on the asset itself. On the credit side, large banks can leverage their low cost of capital to lend to these companies at attractive rates. As the banks will often require a financial guarantee from the PropCo equity investor, the bank can access enhanced debt returns while limiting downside risk, and potentially achieve significant upside through equity warrant coverage.

CONSIDER CREATING NEW VEHICLES TO FINANCE THESE COMPANIES

Real estate shocks such as that brought by COVID-19 drastically expedite the need for innovation. As current tech-enabled real estate businesses grow and new ones emerge, the demand for more flexible and creative funding sources will only increase. Unfortunately, the current risk-return profiles for the majority of real estate investors prevent maverick operating companies from accessing appropriate capital. As an LP or GP, this presents an opportunity to carve out a certain portion of an existing fund for or spin up an entirely new creative platform to finance PropCo/OpCo deals. For those active in the PropTech space, we are very excited for this new era of properly aligning incentives within the capital stack in order to more efficiently scale these types of business models.

	OpCo	PropCo Equity	PropCo Debt
Entity example	MetaProp	Hedge fund X	Bank Y
To finance	Technology, brand, and people.	Real estate equity.	Real estate debt.
Return expectations	High. The coveted 10X.	Moderate. Mezzanine debt returns but willing to take on more risk because they receive coverage from the OpCo.	Low. Possibly looking for a slightly bigger spread to compensate for risk.

Innovation Talent

Misunderstood

By Linda J. Isaacson, Managing Director,
Global Head of Innovation & Technology, Ferguson Partners
Camille Lee, PhD, Senior Director, Leadership Consulting, Ferguson Partners
Michaela J. Carew, Senior Associate, Leadership Consulting, Ferguson Partners

From the outside looking in, the commercial real estate industry often faces the critique that it is conservative, traditional, and lagging. As with all industry stereotypes, this critique contains some degree of truth. At its core, real estate is evergreen. However, the way businesses and investors do business in real estate is already changing. Innovation and digital transformation are at the forefront of this change, which puts real estate in danger of becoming victim to its stereotype. Many of us understand this in theory, but in practice, innovation is often misunderstood. It is not an endpoint. It is both a process and an action.[1]

Further, how innovation impacts organizations and investments is miscalculated. And, most importantly, the role that people and human capital broadly play in enabling innovation is gravely underestimated. So what are the common misconceptions about talent and innovation, and what can companies and investors do to harness the power of digital transformation?

Innovation requires an individual who can see the forest through the trees when it comes to strategic decision making, risk assessment, and idea socialization.

MISCONCEPTION 1
STEREOTYPES OF INNOVATORS ARE THE RULE

The assumptions many of us have when thinking of an 'innovative person' are fundamentally incorrect. We conjure mythologies of individuals such as Steve Jobs and Albert Einstein, who were otherwise known to be rebellious, socially disagreeable, and self-centered. In stark contrast, research suggests that most innovators rely on social capital to disseminate and implement their ideas.[2] In other words, without charisma, even the best idea is a non-starter.

Further, innovation is rooted in a set of behaviors that personality cannot fully predict. Necessary actions to transform a creative idea into innovation include empathy, idea integration, risk-taking, influencing, results seeking, steadfastness, and persistence in pursuing ideas.[3] Perseverance and tenacity are particularly crucial because they can dictate whether a creative idea dies on the vine or evolves into a solution.

Real estate companies and other large organizations often make the mistake of hiring irascible, highly unstructured, significantly countercultural executives to lead innovation and change management. Many executives lack the social skill to effect transformation. Further, owners and partners fall into the seductive trap of one executive's big vision and charm as they make capital allocation decisions. (The classic cautionary tale here is WeWork.)

MISCONCEPTION 2
INNOVATION IS RISKY

Despite the marketing, most innovative ideas are not that risky, and most risky decisions are not that innovative. Contrary to popular belief, successful innovators tend to be more risk-averse than the general population.[4] Although it is essential to take risks when pursuing an innovative idea, successful innovations are born out of calculated risks, balancing detail orientation with a high-level view. Innovation requires an individual who can see the forest through the trees when it comes to strategic decision making, risk assessment, and idea socialization.

Moreover, there is a sliding scale of innovation, ranging anywhere from small, incremental improvements to radical changes. Historically, family offices and other privately held real estate investors, along with institutional investors who tend toward conservatism, find the most comfort with incremental innovation.[5] Radical innovations are the most disruptive but should not be conflated with the most successful. Consider the current trend which finds companies creating innovation labs or entire teams to fundamentally disrupt themselves from within. While correct in theory, pitfalls inevitably emerge in practice when the lab is charged with identifying the next radical shift, and small, incremental changes are largely dismissed.

MISCONCEPTION 3

ONE MUST BE CREATIVE TO BE INNOVATIVE

When organizations seek out talent, they frequently look for resumes laden with examples of a candidate's creativity and "out of the box" thinking. Having ideas can be a desirable characteristic, but it must not be confused with innovative behavior. Ideas must counterbalance with pragmatism and structure.

Due to this misconception, companies make the mistake of taking the expectation of "out of the box" thinking to the extreme. It is impractical to assume that to be competitive, one's entire workforce must be a creative-idea-generating-machine. Those who don't generate ideas are not only important, but they can be champions of innovation by helping to disseminate and implement the ideas that other members of the organization create.[6] At the executive level, leaders can increase the impact of innovative behavior by realizing their role in socializing ideas and creating buy-in across the enterprise.

Ideas must counterbalance with pragmatism and structure.

The key to success is that innovation is a mental investment, not merely a monetary investment. One must have the drive to be curious if one is to innovate.

MISCONCEPTION 4

INVESTING IN PEOPLE AND THINGS CALLING THEMSELVES INNOVATIVE IS ENOUGH

Innovation is subject to a common cognitive bias. As humans, we tend to see behaviors first, and overestimate the importance of personality traits and characteristics, but underestimate the importance of the situation. For example, it would be a mistake to assume that simply because someone comes from a company known for taking a more innovative approach to capital raising through digital integration, that this person was personally responsible for the company's success. The more likely answer is there is something about the culture, how the organization is structured, and the team in which they operated, that contributes to the accomplishments on their resume. In this vein, innovation is a team sport. It is the byproduct of the right team coming together under the right conditions, rather than the product of individual contributors.

Likewise, labeling someone innovative does not mean they are. We see a trend in which investors deploy capital as an LP to a VC or PropTech fund and hope innovation will magically ensue. The key to success is that innovation is a mental investment, not merely a monetary investment. One must have the drive to be curious if one is to innovate. Instead of investing directly in platforms calling themselves innovative or disruptive, invest in individuals, teams, and companies that have a penchant for -insight-discovery, who are trying to solve problems facing the industry and customer's needs.

WHAT, THEN, IS AN INVESTOR TO DO?

There are a few key characteristics of sound investments that should also serve as the foundation of decisions companies and investors take as they navigate the complexities of digital transformation:

DON'T LET FEAR RULE THE DAY

Some of the worst decisions a company can make are those made from fear. Technology is and will continue to change how real estate operates. Already select investors are harnessing data to make decisions relative to the markets they should enter, down to the exact location of an asset in a given market. Data insights fundamentally challenge the long-held belief that a company must have "boots on the ground" to allocate capital. However, it would be a mistake to react to this potential disruption in a self-protective fashion out of obligation to "not be left behind." Instead, it is in investors' best interest to maintain curiosity. Harness curiosity to create a culture in which there is a plan to update technology, predict industry trends, and react appropriately.

At the same time, it does not serve to become dismissive of a changing industry. Innovation blindness is the resulting outcome in which companies do not adequately react to a disruptive threat—such as the hospitality industry and Airbnb.

KEEP YOUR POWDER DRY

Being curious requires positioning oneself to take advantage of market conditions. "Keeping your powder dry" allows you to mobilize quickly and address coming demands. Tech disrupting traditional real estate asset classes is no less immune when it comes to innovation transformation. An excellent example of this is VTS and Convene in the office asset class; Compass and Opendoor in the residential sector; and Amazon in retail, to name a few.

Innovation blindness is the resulting outcome in which companies do not adequately react to a disruptive threat.

The premium on talent represents the reality that innovation activities are at the core of a company's competitive advantage.

Another critical source of "dry powder" is human capital. In building an innovative culture, workforce, and investment portfolios, it is vital to maintain a global lens. There is a worldwide race for talent that can progress a company's technology goals. The premium on talent represents the reality that innovation activities are at the core of a company's competitive advantage.[7] Further, in the US alone, there is a growing shortage of technical and scientific talent who can slot into such roles. Those who cast a global net in acquiring talent will have the upper hand for hiring much-needed expertise.

MOVE UP THE RISK SPECTRUM AS NEEDED

Any good investment requires some assumption of risk. When considering innovation in response to customer need and market demand, one will face one of two situations: First, competitors overreact to an event. Second, the innovative solution may be investing opportunistically, going where no one else is, and standing by that investment. A prime example of this is Sabey's move to expand their data center business when the .com bubble burst despite the droves of companies and investors who were swiftly pulling out of the industry. This opportunistic investment paid off well as Sabey grew to become one of the largest data center companies in the US.

While human capital is the most complex component of the innovation equation, companies should be cautioned against overcomplicating innovation talent acquisition and management. Ultimately, it is crucial for leaders seeking success in innovation to create a culture of calculated risk-taking, curiosity, collaboration, and scale.

NOTES

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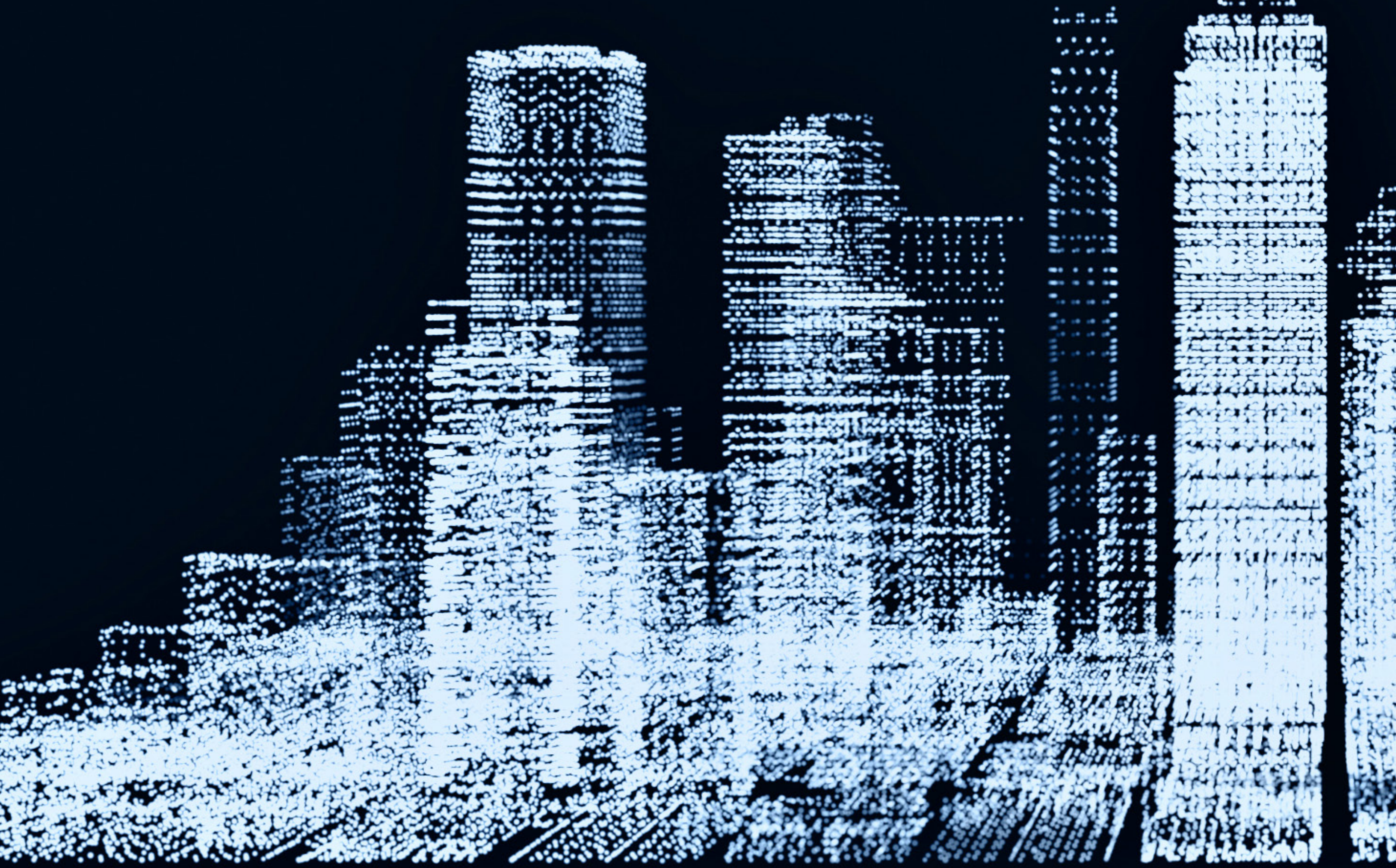
[7] Porter, M. E. (1985). Competitive advantage. New York: The Free Press

IN TODAY'S REAL ESTATE SPACE

DATA DRIVES DECISION MAKING

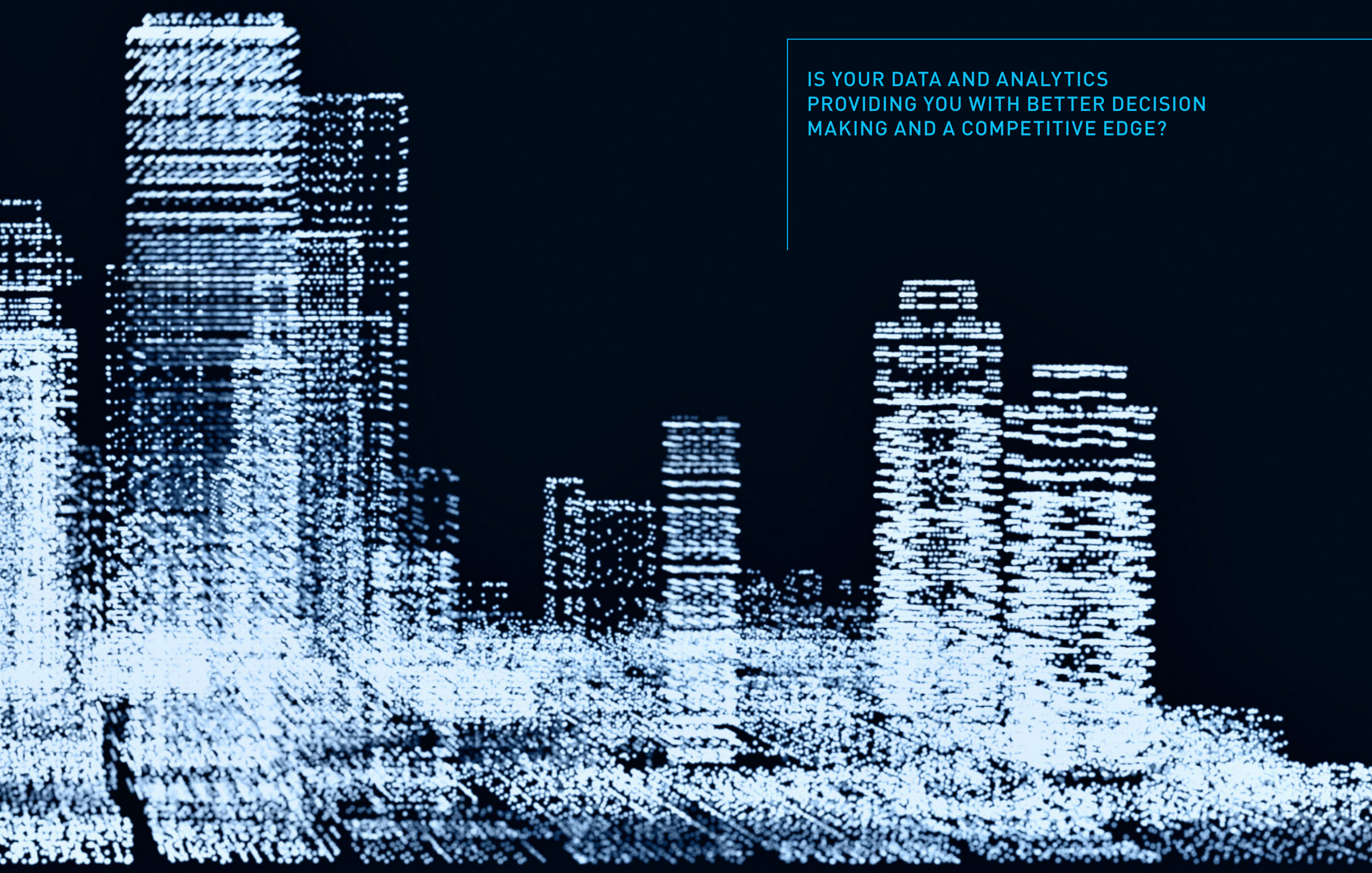
By Phil Marra, Audit Partner & National Real Estate Funds Leader, KPMG



Competition in real estate is fierce, opportunities are harder to find, expenses are rising, you have to do more with less, and you have to be much more effective and efficient in everything you do. No matter where you sit in the organization —asset management, finance, risk management—it's a challenge. All levels of the organization need to step up their game to add financial and operational value.

How do we do it? Admittedly, real estate companies haven't really been future-forward in terms of technology adoption. It's only recently that the industry coined the term "PropTech"—using data and digital technology to add value to how we build, operate, and trade real estate assets. But today, more than ever, the industry is showing signs of really embracing and focusing on PropTech, as suggested by the findings of KPMG's 3rd annual Global PropTech survey, which was published in November 2019.

One big question posed in the survey was, "Why are real estate companies investing in PropTech solutions?" There are numerous reasons companies are going digital, but according to the survey three stand out: efficiency, cost, and decision making.



IS YOUR DATA AND ANALYTICS PROVIDING YOU WITH BETTER DECISION MAKING AND A COMPETITIVE EDGE?

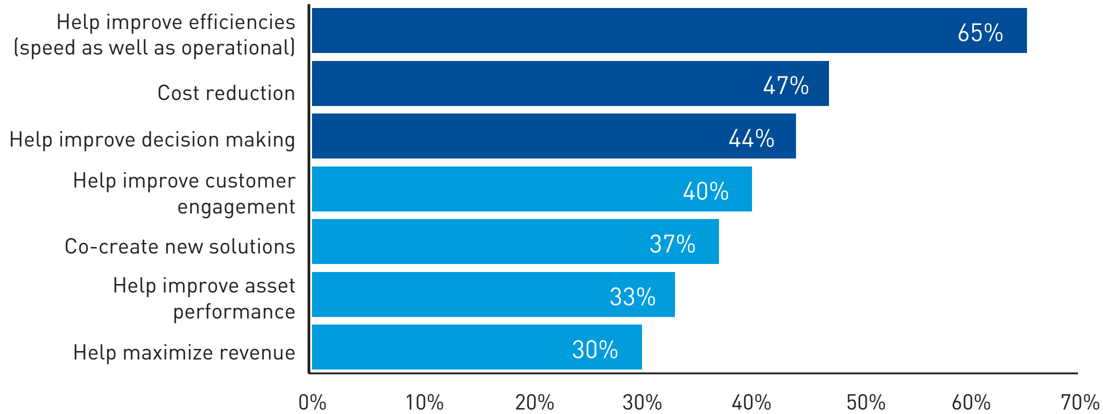
Business improvements companies have looked to PropTech to deliver on over the last two years

In this environment, how are companies in our space using data to gain a competitive advantage at the asset, fund, and enterprise level? Many firms spend so much time collecting and validating data. But significant time also needs to be devoted to analyzing that data, particularly in service of improving financial and investment decision making.

Ideally, you want a single source of truth—whether it's from a third party or a proprietary tool you build in-house—for everyone across the organization. It's tough to ask people to change the way they work, but the benefits of having all of your property data integrated and accessible in one place will speed up the entire process, from letter of intent to lease signing.

The industry should look at data strategy holistically. Companies should assess the current state of their organizational data, develop a vision of where they want the business to go, and design a roadmap to get there. And work to make that process as efficient and flexible as possible. Of course, there's no perfect plan. It's got to be malleable enough to respond to an ever-evolving marketplace, but companies also need a target to shoot for in terms of enabling their financial and operating data to be conversant.

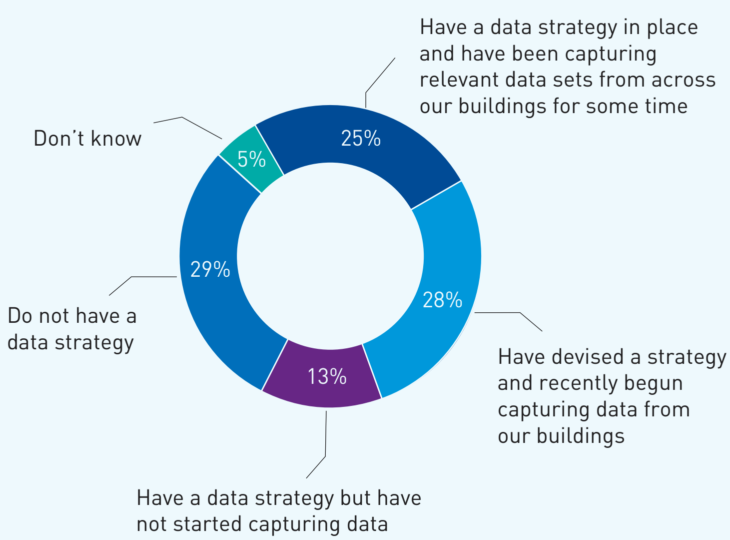
Business improvements companies have looked to PropTech to deliver on over the last two years



Source: KPMG Global PropTech Survey, 2019.

Regarding data and analytics, the survey found that companies have not made much progress in developing integrated digital strategies that incorporate data management or data strategy. Only a quarter of respondents have a data strategy that enables them to capture and analyze the right portfolio datasets. And almost a third have no data strategy at all.

Data must be at the heart of a broader digital strategy—for many companies, it's not



Source: KPMG Global PropTech Survey, 2019.

Real estate companies have enormous amounts of data, but are not doing a great job of capturing, harmonizing, and then visualizing that data and turning it into actionable information. This is fast becoming our industry's primary pain point.

As one industry luminary observed at a Real Estate Funds CFO conference KPMG hosted last year in New York City, so many companies do a fine job of hiring people who excel at Excel. There are plenty of folks who can present data. What we need is talent that can draw insights from the data. Companies need quantitative analysts, data scientists, and data visualization experts. Of course, there's always concern over the expense of building out these capabilities, but you can take incremental steps—like including these skills in the "nice to have, but not required" components of job opportunities and recruitment.

Our industry is looking to strike a balance between what we need in order to progress the business and accessing the raw data that already lives across the enterprise. When we ask, rhetorically, whether we already have most of the data points we need, the answer is likely "yes." But when we ask whether we have the data quality we need to make the most informed investment decisions, the answer too often is "no."

The real question becomes, "Are your data and analytics providing you with better decision making and a competitive edge?" We're all looking for that leg up on the competition, whether in terms of income, cash flow, cost control, capital spend, or a host of other measures. There's no single valid answer. It has to be right for your shop. Every player, large and small, is looking at numerous similar key performance indicators (KPIs), but perhaps weighting them differently. The key is determining what's going to add the most value for your company and identifying quick wins that will help you move the needle.

What we're learning anecdotally and through research is that while we need good, dedicated data technologists, if data strategy is left solely to IT, it will fail. It has to be owned jointly by the full business.

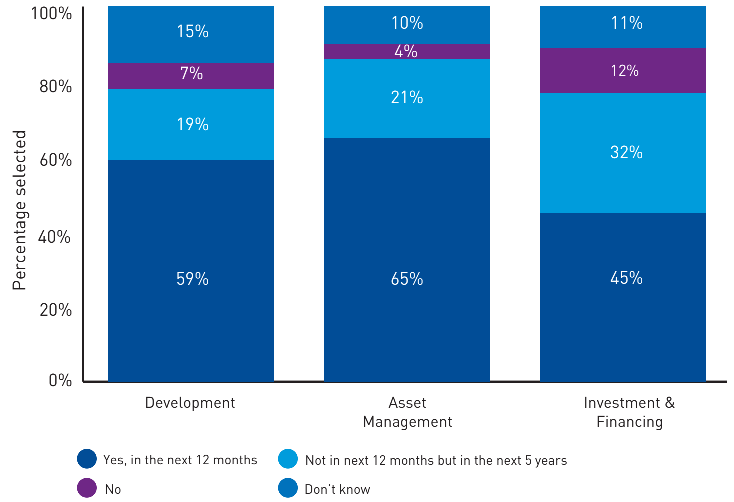
So who owns digital? The good news is 95% of the firms that participated in the Global PropTech Survey indicated someone on the business side is in fact responsible for digital innovation and that 62% is represented by C-level executives. The bad news, however, is 65% of those leaders don't have technology backgrounds. This lack of technical skills at a senior level is quite simply a speed bump on the road to digital progress.

This skills gap can be addressed by bringing in digital experts to work in teams toward innovating the organization and changing the culture. That individual needs to understand your business. But they also need to understand today's emerging technologies. As a global industry, we're typically hesitant to break things ourselves; to disrupt. That's why we need technology to do it for us; to do the types of things that will, hopefully, add value and accelerate growth. That means having the right people in the right places at the property and operational levels who are willing and able to drive innovation.

This will help create a culture where it's OK to move fast, to disrupt and break things—but with a clear plan. But to make this cultural shift the industry's mindset needs to change. Many property companies want to explore digital solutions, but aren't prepared to budget for them. These companies are insufficiently focused on the opportunity to improve the customer experience, and are too concerned that the potential risks of digital investment will outweigh the benefits. Instead, we believe they should view digital transformation as an opportunity to experiment more and learn from the results.

Likelihood of investment in IT, digital or propTech at different stages of the property lifecycle

Be an organization willing to change, which may be the hardest part of all. There will be successes and failures along the way, but hopefully we will learn from both in our journey toward increasing efficiencies, reducing costs, and enhancing decision making.



Source: KPMG Global PropTech Survey, 2019.

DATA OPTIMIZATION IN ACTION

MAXIMIZING ALPHA

Real estate executives are facing growing demands from stakeholders for better information about potential opportunities and the related risks. In an effort to enhance the decision-making process, KPMG gathers and analyzes a wide variety of traditional and nontraditional data, transforming them into signals that ultimately become actionable indicators about markets, geographies, and other factors.

THE CHALLENGE

We recently engaged with a large REIT that had raised a new investment fund and was eager to accelerate its property acquisitions. Though previous funds had performed well, management was concerned about the increased competition and acknowledged the need to improve its forward-looking accuracy in terms of predicting several financial outcomes, including yields and rents. The team also communicated its desire to engineer assurance features into their property selection protocol and enhance overall investor confidence.

THE RESPONSE

After learning about and assessing the REIT's existing processes, we worked with them and employed a design-thinking approach to revamp their property selection and evaluation models with a goal of improving their prediction accuracy metrics. The suggested modifications included loosening thresholds on a number of categorical variables, dropping some correlated variables, and remodeling the remaining variables with various machine learning techniques aimed at developing an adaptive, data-driven strategy that "learns" from the inputs and identifies patterns and signals.

From there, we engineered, tested, and eventually selected an additional 5,000 variables, the majority of which came from external data sources. This ultimately resulted in a powerful nonlinear scoring mechanism. This arrangement makes extensive use of public data from more than 200 sources. Many of the signals—including those derived from commercial and residential real estate sources, crime and other first-responder sources, and transportation sources—are highly perishable, hence the need to continuously curate the solution infrastructure.

THE BENEFIT

While the REIT's underlying fund performance has historically been competitive, there were ongoing minor variances in yields and rents that the team had trouble quantifying. With this new data-powered process producing thousands of causal and explanatory signals that facilitated forward-looking, alpha-building projections, formerly unexplained inconsistencies became explainable and avoidable.

Increasingly, investors want real estate executives and fund managers to demonstrate the use of more science and less gut instinct when making investment decisions—although there are certainly instances when visceral judgment is appropriate. Our approach in this case helped illuminate what had previously been difficult-to-pinpoint variances, enabling management to confidently make decisions corroborated by science and present objectively provable justification to the marketplace.

CALCULATING POLITICAL RISK

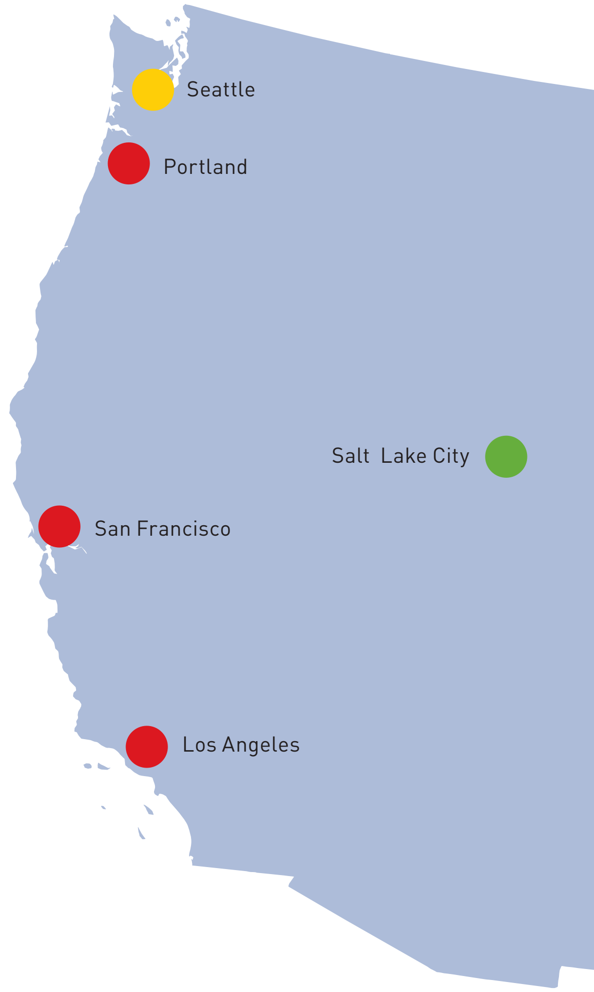
Why it's important for investors to find ways to calculate political risk in cities.

By Jeff Adler, Vice President, Yardi Matrix
Paul Fiorilla, Research Editorial Director, Yardi Matrix
Madeline Winship, Senior Research Analyst, Yardi Matrix

This article and its analysis is explicitly designed for institutions investing in the continental US and is designed as a framework and a work in progress. Readers may have different views on the relevance and weighting of the factors described. All such discrepancies are exclusively attributable to the authors.

In its focus on an often-controversial list of metrics, there is a clear need to evaluate metro-area risk just as one would evaluate country risk. Approaching this topic is fraught with risk. We were initially reluctant to even take up the issue, yet our clients urged us to try. An area of high political risk is not necessarily one that we might demur from investing in; neither is a market with low political risk necessarily one that comprises a good investment. The goal of this analytical framework is to explicitly consider the factor and be compensated for the risk.

The analysis was done—and article was written—before the coronavirus entered the US, before "social distancing" was a term and well before large portions of the country were forced to quarantine. Our crystal ball was not clear enough to incorporate pandemics as a metric. At the same time, however one feels about the responses to the pandemic by various government actors, it illustrates the basic point of the article: policy and governance are critical to the economy and the performance of metros.



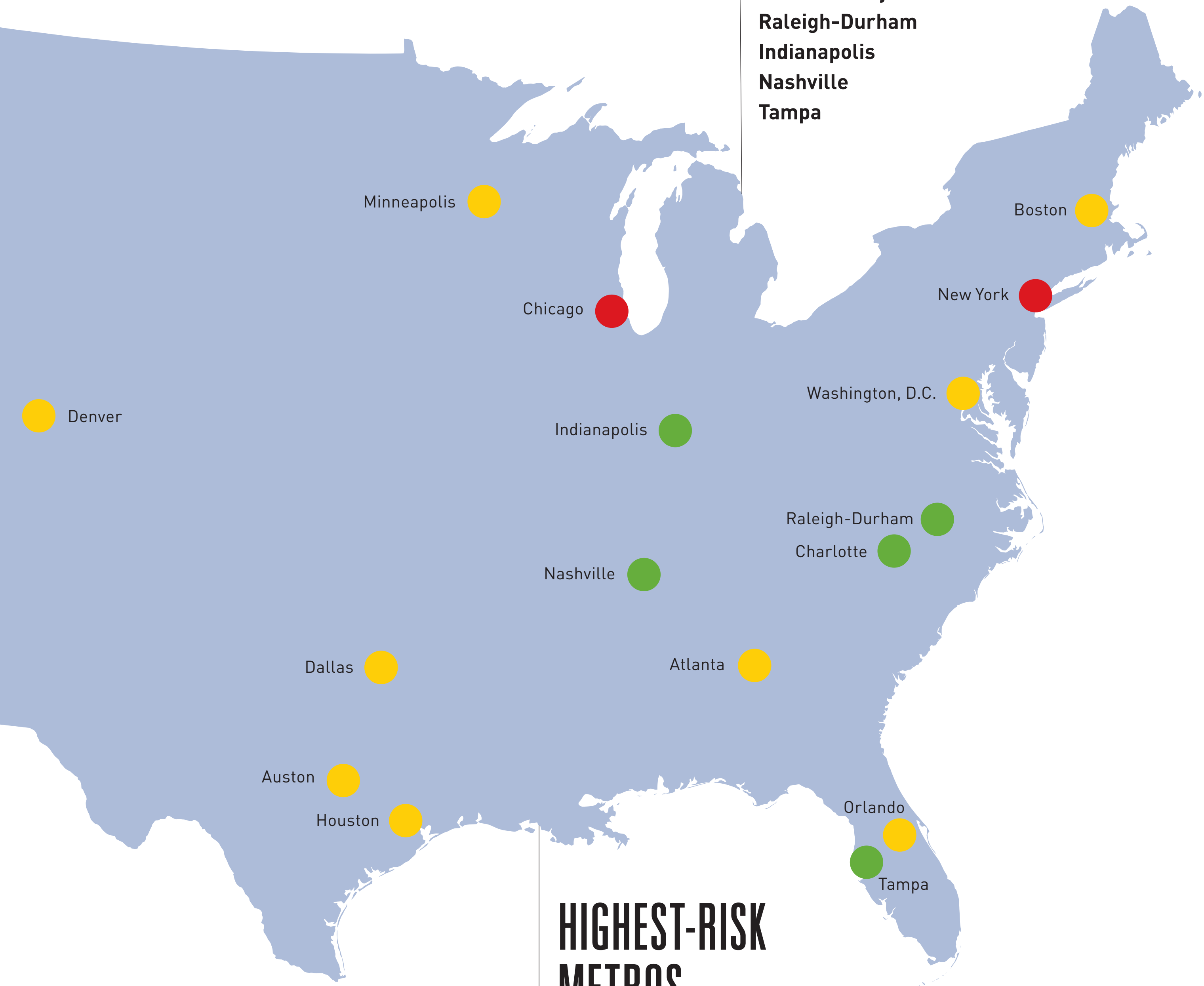
RISK INDEX

- Low Risk
- Moderate Risk
- High Risk

LOWEST-RISK METROS

Rapidly growing secondary/tertiary metros that are affordable and have low tax burdens and healthy public budgets.

Salt Lake City
Raleigh-Durham
Indianapolis
Nashville
Tampa



HIGHEST-RISK METROS

Cities among the seven lowest scores and ranked lowest in the affordability and tax categories.

Los Angeles
San Francisco
Chicago
New York
Washington, D.C.
Boston

CITY RATINGS

Low Risk
Moderate Risk
High Risk

	Political Risk Rating	Affordability	Philosophy Toward Affordability	Urban Policing/ Security	Social Mobility	Tax Burden (Business/ Individual)	Unfunded Pension Liability
Salt Lake City	2.78	3	3	2	3	3	3
Raleigh-Durham	2.77	3	3	3	1	3	3
Indianapolis	2.67	3	3	2	2	3	3
Nashville	2.55	3	3	2	2	2	3
Charlotte	2.33	2	3	2	1	3	3
Tampa	2.33	2	2	3	1	3	3
Minneapolis	2.32	3	3	2	3	1	1
Austin	2.22	2	3	2	2	2	2
Orlando	2.12	2	2	2	2	3	2
Houston	2.00	2	3	1	3	2	1
Seattle	1.90	1	3	1	3	2	2
Atlanta	1.88	2	2	2	1	2	2
Dallas	1.88	3	2	1	2	2	1
Denver	1.78	1	2	2	3	2	1
Boston	1.77	1	2	3	2	1	1
Washington, D.C.	1.68	1	1	2	3	1	3
New York	1.67	1	1	3	2	1	2
Chicago	1.55	1	2	2	2	1	1
Portland	1.47	1	1	1	2	3	2
San Francisco	1.35	1	1	1	3	1	2

When allocating capital, investors focus most of their efforts on analyzing economic growth and real estate fundamentals. An often-overlooked point of analysis is political risk, although a metro's governance has clear implications for real estate investors.

In other words, policy counts. Metro-level growth patterns in the US have shifted over time, driven by economic and social factors. Although some of these trends are baked in by history and geography, key economic drivers such as housing, education, taxes, infrastructure, and zoning are directly affected by policy choices. This is why it is important for investors to find ways to understand political risk.

At this point, the popular opinion often says, "keep politics out of research." However, there are clear differences in policies between cities, states, and regions that can impact the outlook or investors—and there needs to be a way to map these differences.

DEVELOPING A NEW POLITICAL RISK MATRIX

To analyze the subject of political risk, we created a ranking system of 21 major metros using six categories we consider important in determining future political risk. Three of the categories we categorize to be short-term risks (affordability, philosophy toward affordability, and urban policing/security risk); the other three factors (social mobility, tax burden, and unfunded pension liability) are long-term risks. In assigning scores to these factors, we considered a mix of data and anecdotal/policy dynamics that we believe will impact investment performance.

AFFORDABILITY

As companies and individuals become more mobile, the cost of housing becomes an increasingly important element of growth. We can see this with technology companies creating outposts in secondary and tertiary metros because there isn't enough appropriately priced housing for workers in major tech markets such as San Francisco and Seattle. Large metros including Chicago, New York, and areas throughout California have a net out-migration of residents leaving for states with lower housing costs, such as Texas and Florida. Metros including Dallas, Atlanta, and Phoenix have taken advantage of this outflow to attract corporate relocations.

PHILOSOPHY TOWARD AFFORDABILITY

While affordability covers mostly statistical measures, the philosophy metric involves more policy-oriented issues encompassing rent control initiatives, exclusionary/ inclusionary zoning regulations, permitting and entitlement requirements, and supply restrictions within each market. Metros that encourage housing construction or offer incentives to increase affordable housing development are responding to a need that will create an environment favorable for growth. Alternately, metros that make it difficult to respond to the demand for affordable housing—for example, by enacting rent control—are less likely to produce strong growth.

21 CITIES 6 FACTORS

SHORT-TERM RISKS

1. Affordability,
2. Philosophy toward affordability
3. Urban policing/security risk

LONG-TERM RISKS

1. Social mobility
2. Tax burden
3. Unfunded pension liability

URBAN POLICING/ SECURITY

Our ratings are based on crime statistics from 1977 to 2017 from Moody's Analytics and the US Federal Bureau of Investigation, as well as secondary research on the overall landscape of local urban policing and security risk. The stats include the number of property and violent crimes per capita and a crime index that considers both types of crime. We also factored in secondary research around several elements that can impact a market, including police enforcement and prosecution of public nuisances and low-level crimes, the public reputation of the city's police force, and local policies regarding homelessness (which tends to involve a high rate of drug addiction and mental illness, and is a growing quality-of-life problem in many cities).

SOCIAL MOBILITY

Metros have a better chance of outperforming if they have policies that enable individuals to succeed, even if they come from impoverished backgrounds. The overall rating in this category incorporates data from "The Opportunity Atlas," prepared by Opportunity Insights, a research and policy group at Harvard University. The study followed 20 million Americans born between 1978 and 1983 from childhood to their mid-30s to determine which neighborhoods in America offer children the best chance to rise out of poverty. The social mobility data provided by the Opportunity Atlas for children from low-income families was used as the primary source for our Social Mobility rating in each market, and we also factored in secondary research on the availability of local educational opportunities that included charter school enrollment, the number of advanced placement (AP) courses in each city's public high schools, as well as apprenticeship opportunities and tech-based curricula in public-school programs.

TAX BURDEN (Business/Individual).

The tax burden scores took into consideration a market's income and its sales, corporate, property, and unemployment insurance taxes for both individuals and businesses. We used the state rank score of each market from the Tax Foundation's 2019 State Business Tax Climate Index, which compares US states on 118 variables in five major areas of taxation and combines these results to generate an overall ranking score for each state.

The correlation between tax rates and economic growth is hotly debated, and taxes are merely one component of larger economic decisions. The largest and most liquid primary markets are among the most highly taxed and they have performed well over time. However, real estate taxes are an increasing burden for many property owners, and the 2017 federal tax law's elimination of the state and local income tax deduction has exacerbated the disparity in housing costs between states, which could spur an exodus of households to lower-tax metros.

UNFUNDED PENSION LIABILITY

Our score for this metric is based on the pension liability at the city and state level. Data on each state's unfunded pension liability was collected from "The State Pension Funding Gap: 2017," an issue brief written by the Pew Charitable Trusts. The state pension plan data collected for each of the markets' states included plan net position, total pension liability, and the funded ratio. Metros that have large unfunded obligations may be hit with big payments that could force them to increase taxes steeply and/or leave them unable to fund important programs such as affordable housing or infrastructure.

NEXT STEPS

Analytical Framework and Risk

Rapidly growing secondary/tertiary metros that are affordable and have low tax burdens and healthy public budgets.

BUILD YOUR OWN SYSTEM

Our top scores were awarded to Salt Lake City, Raleigh-Durham, Indianapolis, Nashville, and Tampa—rapidly growing secondary/tertiary metros that are affordable and have low tax burdens and healthy public budgets. Meanwhile, the six "primary" real estate markets—Los Angeles, San Francisco, Chicago, New York, Washington, D.C., and Boston—were among the seven lowest scores and ranked lowest in the affordability and tax categories. Nonetheless, primary markets remain the largest and most liquid, and they have performed well over time.

Because our analysis is merely a framework and a work-in-progress, and should in no way be construed as a recommendation for or against any markets, we believe there is opportunity to develop an even deeper understanding of political risk by including additional factors, such as:

INFRASTRUCTURE

Airports, highways, bridges, and rail lines can be drivers of growth. There are various plans (both public and private) to build high-speed train routes between population centers—examples include San Francisco to Los Angeles, Houston to Dallas, Southern California to Las Vegas, and Portland to Vancouver, B.C.—with potential for economic impact on those regions. Many cities have bridges, tunnels, roadways, water and electric systems, and other utilities that need repair. Some fast-growing metros are finding that their highway and public transportation systems are inadequate, and housing costs are rising much more rapidly than expected. The lifestyle conditions that helped attract growth could disappear without smart planning and increased resources for infrastructure.

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG):

Some investors are concerned with issues that involve the environment and equality, and prioritize stated ESG principles. For example, scientists forecast that as polar ice caps melt, ocean levels will rise and force coastal cities to implement plans to deal with potential water encroachment. Alternately, gender equality in the workforce is an important element of growth as more women graduate from college than men and become a larger part of the corporate world.

6 KEY MARKETS

Primary markets remain the largest and most liquid, and they have performed well over time, including the current extended cycle

IMMIGRATION

The birth rate of native-born households has fallen below the level needed to maintain the US population without immigration. Most of the major urban centers in America are seeing an out-migration of domestic residents but are relying on immigration to fill jobs and create growth. It's not just cities; immigrants are also reviving some rural areas that have dwindled as a result of plant closings or other economic hardships.

DON'T IGNORE THE ELEPHANT IN THE ROOM

This article is not meant to be a final word on the subject. It's not even our last word as authors and researchers. We plan on expanding our study to more metros, and will include a section on climate change. Additionally, a diversity of policies can be found within each metro for the issues we highlighted (for example, municipalities within the same metro often have varying zoning policies). Finally, policy isn't science–data, correlation, and causation can be debated, and investors are likely to have different views as to what constitutes effective governance.

We also understand that there is a risk inherent in any policy discussion. A reader could potentially find cause to disagree with at least a part of our analysis, but because political risk is often overlooked in commercial real estate, our goal is to generate conversation. Beyond differences opinion, the bottom line is that investors should not ignore the impact of policy when making portfolio-level allocations or underwriting deals.

About the Authors

Jeff Adler, Paul Fiorilla, and Madeline Winship are leaders at Yardi® Matrix, which offers the industry's most comprehensive market intelligence service for multifamily, office, self-storage, and vacant land properties. Learn more at yardimatrix.com

TALKING ABOUT REGULATION

Insights from the AFIRE Tax & Regulatory Summit

By **Benjamin van Loon**, Communications Director, AFIRE

The global real estate investment industry is highly dependent upon the vacillations and nuances of tax and regulatory issues to determine portfolio decisions, partnerships, and investment theses. Integral to AFIRE's member mission of becoming better investors, leaders, and global citizens is the need to create a space for experts to convene and discuss pressing questions that not only affect their own work, but ultimately, the success of their clients and their investments.

The specialized expertise needed for building long-term investment strategies, especially across borders, is often proprietary and can only be developed through exclusive access. However, as much as real estate investing is a competitive industry, its overall influence thrives on shared knowledge, expertise, and the ability to translate industry arcana into actionable intelligence, policy development, and risk management—especially in the face of mounting global economic and political uncertainties, technological advancement, and climate change.

Actionable intelligence, policy development, and risk management in the face of mounting global economic and political uncertainties, technological advancement, and climate change.

With these notions of change as a backdrop, AFIRE's recent inaugural Tax and Regulatory Summit invited both members and guests involved in navigating tax and regulatory issues to address the latest ideas (and questions) related to Opportunity Zones (OZs), Qualified Foreign Pension Funds (QFPFs), the Foreign Investment in Real Property Act (FIRPTA), treaty changes, debt investing, blocker planning, and other topics of pressing interest for both US and non-US real estate investors.

While experts around the room provided privileged updates on these and other issues, the critical question throughout the day focused on where we are now, and what new laws, policies, practices, and agreements might bring us in the future.

For example, much of the discussions looked at the implications of FIRPTA. When it was first introduced in 1980, FIRPTA imposed taxes on gains realized when non-US individuals or corporations disposed of US real property interests by treating those gains similar to what the Internal Revenue Service (IRS) considers "effectively connected income," so generated when a non-US individual or corporation otherwise engages in a trade or business in the US.

FIRPTA has proven a challenge for many non-US investors in real estate over the past decades, even as Congress has tacked on new amendments and proposed regulations over the years as a way to alleviate questions or complications resulting from the act. Most recently, in mid-2019, the IRS and the US Treasury proposed regulations that would provide an exemption from the FIRPTA tax for QFPFs, which gave some investors supposed relief from the regulations—until they started to dive deeper into the language of those regulations. Specifically, how are the regulations actually defining "pension fund?" The answer isn't so straightforward, and thus, the relief was temporary.

"We can all agree that the proposed regulations are friendly overall, but they don't yet have a cohesive definition of "pension or retirement benefits," said David Friedline, Partner at Deloitte Tax LLP. "Not all pension funds worldwide are created equal. It doesn't appear Congress' intention is to require foreign pension funds to be fundamentally similar to US pension funds, so there may still be work to be done to clarify the qualification of certain types of pensions that differ from ours."

One of the ways non-US investors have worked through FIRPTA has been to explore differing fund structures and vehicles—some more complex than others. "Instead of simpler structures, we're instead seeing an increasingly wide range —REITs, 892, QFPF, US tax exempt," said Dene Dobensky, Principal at KPMG LLP. "Though there is a range of vehicle choices, they often make for more cost, more risk, and frequently, they require more rebalancing."

As an extension of this trend towards rebalancing, some investors have expanded their interests in the Opportunity Zone (OZ) program, which was created by the 2017 Tax Cuts and Jobs Act (TCJA) to spur economic development and job creation in distressed communities by providing tax benefits to investors who invest eligible capital into these communities (approximately 8,700 in the US and Puerto Rico). Seemingly straightforward, significant time has been spent by the tax and regulatory community determining what actually qualifies as eligible capital.

As a crucial qualifier on the definition of the program—that it's not merely an easy way for investors to qualify for tax benefits—Eric Requenez, Partner at Stroock & Stroock & Lavan LLP, said, "An opportunity zone does not turn a bad deal into a good one. You still need to have a good deal, and that's why it's important for investors to understand the Opportunity Zone program—including the requirements that may impact their investments."

While the benefits of the OZ program can be divided into three primary benefits—tax deferral, tax reduction, and tax elimination—each are subject to varied and evolving nuances, not only with the OZ program proper, but the countries where investment capital originates. Foreign investors can generally invest and trade in non-originated US real estate loan securities without any US income or withholding tax consequences, though beneficial treatment is subject to the various requirements of the trading safe harbor, the portfolio interest exception, or an income tax treaty.

In contrast, non-US-based investors who operate a trade or business (or where an income tax treaty applies, investors who have a "permanent establishment") in the US are subject to US tax on their net income that is "effectively connected" to that business. And if these investors originate loans directly, they may be considered to have a trade or business (or permanent establishment) in the US and may be therefore be subject to US federal and state income tax, branch profits tax, as well as tax filing requirements.

To solve for these taxation issues, blockers serve as a standard feature of inbound investment structures, especially in private equity and real estate, and is treated as a corporation for US federal tax purposes and pays tax in the US at the applicable corporate rate (currently 21%). Typically, such structures are intended to insulate foreign investors from US federal tax filing requirements and reduce the effective tax burden on investors by reducing corporate taxable income through the use of deductible interest expense.

Blocker structures vary in composition and distribution over time, and there is no one-size-fits-all solution for real estate investors. As one example, while REITs are used under certain circumstances to avoid FIRPTA issues, they also have the potential to entail high compliance costs as well as a 30% withholding tax on dividends. Alternately, treaty qualification is much easier for C corporation dividends—in most cases 15% or lower. Where the C corporation tax can be reduced through leverage, and portfolio interest exemption can be satisfied, the leveraged blocker will often be preferable to a REIT.

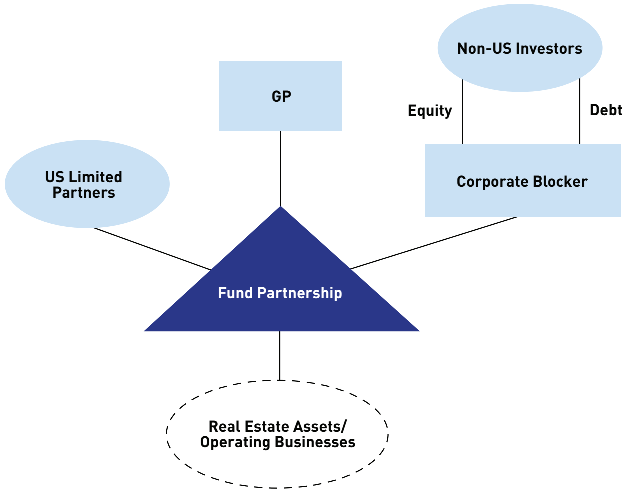
In the midst of these and other approaches to blocker structures, according to Jonathan Talansky, Partner at King & Spalding, the proposed regulations under the new section 163(j) of the TCJA have answered some questions but generated new ones in their place. For example, the proposed regulations contain a safe harbor for equity REITs, such that if a REIT holds real estate directly or through partnerships or other REITs, it will be eligible to make the real property election. This applies to all of the assets of the REIT as long as 10% or less of those assets consist of mortgages and other real estate financing assets, though it remains unclear how this safe harbor applies to certain tiered structures.

For many at the Tax & Regulatory Summit, such nuances underscore the need and value of conversation across the industry, and ultimately invoke the archetype of the one-armed tax expert. Because few answers or opinions are straightforward in the world of real estate tax and regulatory issues, the industry calls for a legion of one-armed attorneys and accountants, because to any question, their best answer will (and perhaps should) be, "Well, on the one hand…"

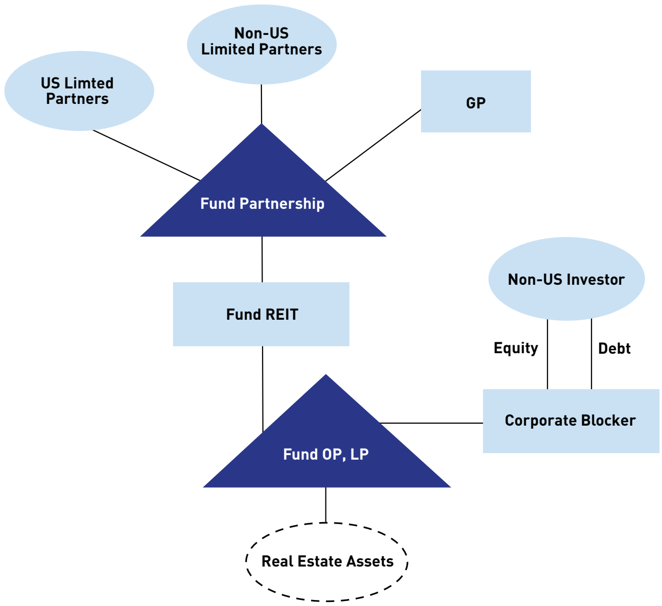
In many cases, multi-billion-dollar investments hinge on how experts interpret complex legal and regulatory minutiae, which cannot (and should not) be interpreted or applied in a vacuum. Success in real estate investing means learning from others and having the ability to connect with peers facing similar issues. The AFIRE Tax & Regulatory Summit, even in its inaugural state, has not only created this rarefied forum, but also provides a rich basis for ongoing discussions affecting the future of our work around the world.

SAMPLE BLOCKER STRUCTURES

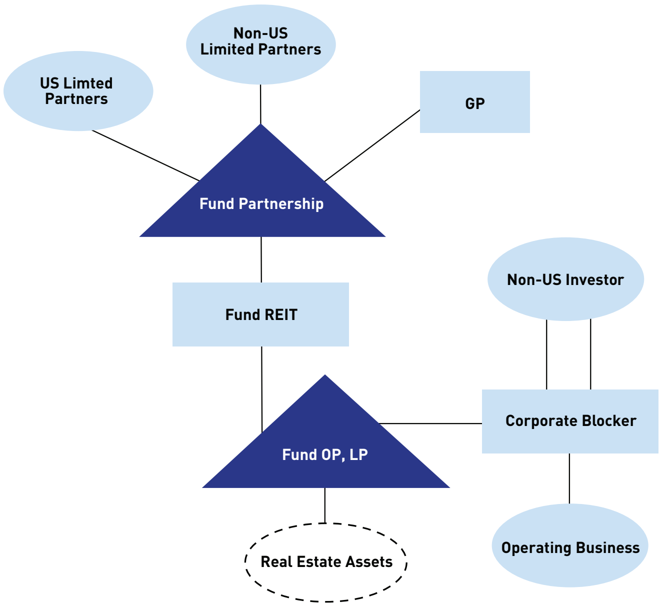
Leveraged Blocker: Simplified Structure



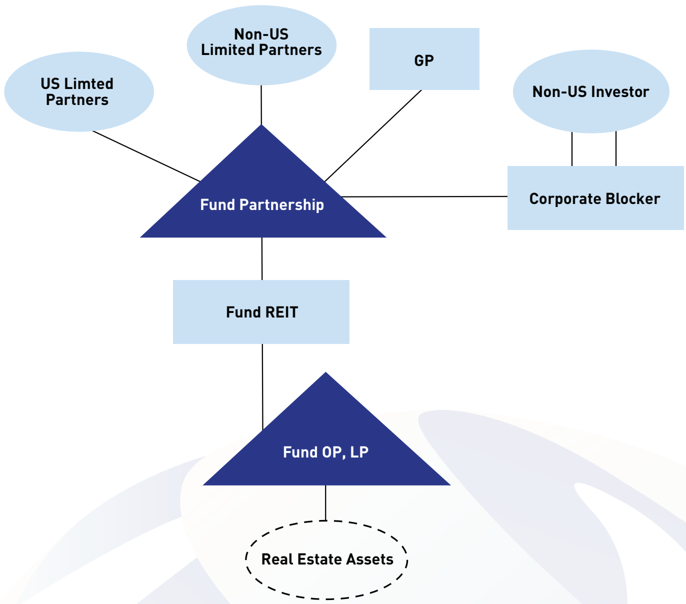
Blocker at OP Level



Blocker at OP Level and Unrelated Operating Business



Blocker at Fund Level



A call to Ethics

By Elchanan Rosenheim, Profimex
Tali Hadari, Profimex

The purpose of investing is to profit.

This is also our goal as investors, although, we do not pursue profit at any price. Unfortunately, we live in a society that sanctifies personal gain, money, and power; a society that does not attribute sufficient importance to the way profit is achieved. In such an environment, it is hardly surprising that public funds are squandered by controlling shareholders, and it is not uncommon to learn about fraud in the investment market.

Today, it is clearer than ever that improving the ethical business environment must be considered a matter of vital necessity.

Many of us wish to see profitable investments conducted ethically. This norm will place us on a better path as a society.

While efforts of the legal system to solve the problems of fraud, deception, and dishonest conduct are most welcome, the law is not enough on its own, because it can never cover every situation. The wheels of justice move slowly, and thus there is no substitute for ethical responsibility, especially in an environment that sometimes lacks enforcement and deterrence. Furthermore, illegal conduct is, by definition, unethical, but ethics holds much more than the law. The parts where ethics are most vital are in the areas not covered by law, i.e., in areas considered inappropriate, though not necessarily illegal.

Conducting business ethically does not attract the import it is due from lawmakers, the media, regulators, and stakeholders. Perhaps if honest conduct in business received the attention it deserves, we would at least be aware of fraud and deception and could reveal it before it is too late, saving us from having to pick up the pieces after the damage has been done and investors have already lost their money.

And as we are dealing with the law, I want to turn to the most venerable legal and ethical systems—our spiritual belief systems.

In Hebrew and Christian scriptures, for example, the Old Testament not only demands that we proactively refrain from forbidden acts—it also calls upon us to avoid acts that involve conflicts of interest or exploitation of a person's weakness, as detailed in the Book of Leviticus:

"Do not curse the deaf, do not place a stumbling block before the blind. Do not pervert justice; do not show partiality to the poor or favoritism to the great but judge your neighbor fairly. Do not stand idly by the blood of your neighbor. Do not hate your brother in your heart. You must surely reprove your fellow so that you do not incur sin on account of him."

We have a duty to act, and to warn a person who is doing wrong, to try and prevent them from continuing this behavior.

Furthermore, as written in the Gospel of Luke in the Christian New Testament, "Whoever can be trusted with very little can also be trusted with much, and whoever is dishonest with very little will also be dishonest with much." This is the precisely why we have the obligation to condemn immoral conduct. Although the parable refers to financial conduct, it has a much broader import. Ethically speaking, there is no such thing as de minimis; every choice of conduct is also a test of character.

The same Gospel of Luke also brings us the Parable of the Good Samaritan, which itself refers to the Old Testament command to "not stand idly by the blood of your neighbor." This command has even been partially adopted by Israeli law (though it refers to civil law rather than criminal law), forbidding us from standing aloof while someone is in danger. This command has been interpreted to apply to any case in which a person may be harmed, including suffering financial damage, and one does nothing to warn that person.

Further, the verse that commands us to "not place a stumbling block before the blind" was interpreted to apply to any person who lacks information about a particular subject. Professor Nechama Leibowitz, an Israeli biblical scholar, expanded the interpretation of the verse, calling it a positive commandment to proactively prevent a person from failing.

This means that if we know of a person who may enter into a transaction with a dishonest person, perhaps due to their lack of knowledge or experience, we must take action to prevent them from making such a transaction (or investment).

Maimonides ("Rambam"), the 12th Century philosopher, also interprets this verse to suggest that blindness may also refer to a low moral level, and the "stumbling block" is the temptation of something forbidden. Which means that we, as a society, must create an environment in which legislation, enforcement, and punishment do not place a stumbling block before the blind. We need a society that condemns unethical and fraudulent conduct; a society that has ethical norms and wields tools to reward honest behavior.

Other religious scriptures, such as the Islamic Quran, not only forbid doing wrong for personal benefit, but also questions a person's entire belief system if they are dishonest: "There is no faith for one who lacks honesty." There is a holistic connection between how we conduct business and who we are as people. If we heal our business environment, we may also be able to heal society itself, regardless of religious belief.

Similarly, a well-known Hindu passage states, "the entire purpose of our life on this earth is to benefit others through one's life, possessions, thoughts, and words." (And, importantly, our professions, as well.)

The philosophers of moral relativism, such as Protagoras, Nietzsche, and Weber, believe that morality varies between times, geography, and cultures. However, these few examples addressed above demonstrate that all spiritual beliefs acknowledge the importance of moral standards. Establishing a profound code of ethics for our profession will take this to the next level as a unified code of conduct.

So, is it possible to make a profit while applying high ethical standards?

Yes, it is possible—but it is not easy. It requires that we work much harder at the challenges that stand before us, as difficult as they may be. In truth, this is the simpler case. We want to focus on another, more challenging, situation in which the choice to act ethically may seemingly contradict making a profit, which is not unusual in the world of business.

We use the term "seemingly" due to the belief that even if preserving our values costs us money, it creates value. When we manage investments responsibly, we have a profound obligation to be accountable for our actions and obligations, even during difficult times. The good news is that ethical, moral, and transparent management of our businesses is not at odds with making a profit. Ethical business conduct ultimately makes excellent commercial sense. Whether you call it "smart ethics" or "enlightened egotism," taking the moral path is good for business and makes sound, long-term economic sense.

The financial crisis of 2008 was the most significant in the past century. Companies were obliterated, and securities and bonds were rendered worthless. Throughout this challenging environment, we never abandoned the investors at our firm. Rather, we worked hard, and often without compensation, to minimize losses. Regretfully, we could not manage to prevent them all, though we succeeded in minimizing losses and even making a profit for our investors in many investments that were at a high risk of losing funds, while many other investment managers worked only to protect themselves and their personal losses.

This lesson brings us finally to one of the most important points of all—the Law of the Conservation of Value (similar to the Law of Conservation of Energy), which says that hard work, even that done at a considerable cost, will never have been made in vain. Even if we eat into our profits, we are still able to preserve value through our reputation, the trust of our investors, and in the extensive experience that we accumulated during and after the crisis.

Therefore, despite upsetting incidents that hurt our industry's reputation from time to time, we refuse to give in to pessimism. We believe that consistent honest conduct is most effective and rewarding—especially in the long run. If everyone plays their part, whether out of religious conviction, private conscience, or pragmatism, together we can work in a decent society grounded in ethical business conduct and a healthier commercial world.

To learn more about AFIRE's ethics program, visit afire.org/about

INVESTING IN US CRE FOR THE LONG HAUL

By Martha Peyton, PhD, CRE, Managing Director of Real Assets Applied Research, Aegon Asset Management

Expectations for long-term investment performance among asset classes are the drivers of asset allocation. Historical performance is often used to anchor expectations. For US commercial real estate (CRE), history suggests an 8–9% unlevered total return over the long term. However, developments in recent quarters suggest that such an assumption may prove to be unwarranted even before considering the impact of the coronavirus. At the same time, since all asset types will confront the same changes in the investment environment, the competitive position of US CRE may well retain its relative attractiveness.

NATIONAL PROPERTY INDEX

9.1%

TOTAL RETURN AVERAGE SINCE 1978

8.2–10.2%

ESTIMATED TOTAL RETURN OVER 20, 10, 5 YEARS

US CRE PERFORMANCE

LONG-TERM PERFORMANCE COMPOSITION

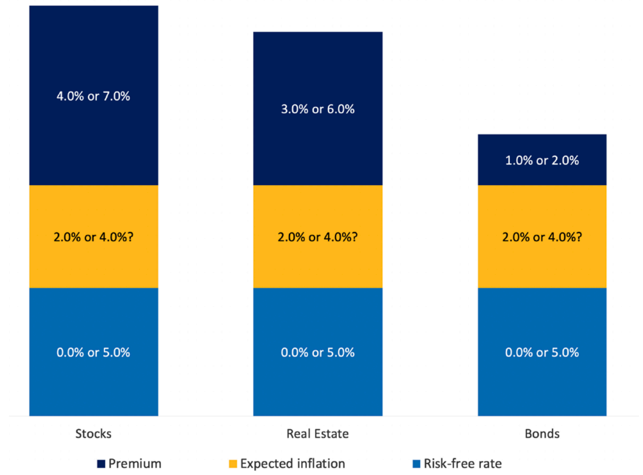
A typical rule of thumb estimates US CRE investment returns at an unlevered 8-9% per year. This estimate is supported by history which shows NCREIF Property Index (NPI) total return averaging 9.1% since its 1978 inception.[1] Shorter period total returns also support the estimate with 20-year, 15-year, 10-year and 5-year total returns ranging from 8.2% to 10.2%.[1] Is this rule of thumb a good bet looking forward over the long term? Before deciding, consider how the drivers of investment performance are changing, not only for US CRE, but for all asset classes as well.

All US asset types compete for investment commitments against the most basic, available, and riskless alternative…US Treasury's. In times of distress, investors flock to Treasury's with confidence that the US government stands behind its debt no matter how dire the situation. Short-term debt is cash-like and its return can be represented by the overnight federal funds yield. The yield on federal funds is managed by the US Federal Reserve (Fed) and set by its Federal Open Market Committee several times every year.[2] We can deem it as the economy's "real" rate of interest and the risk-free component of asset returns in Exhibit 1.

Investors with longer investment horizons must consider inflation. Inflation expectations, along with prospects for the real rate, set an opportunity cost for all investments beyond very short-term Treasury's. The extra return potential on risky investments is the spread or premium over expected inflation and the expected real rate.

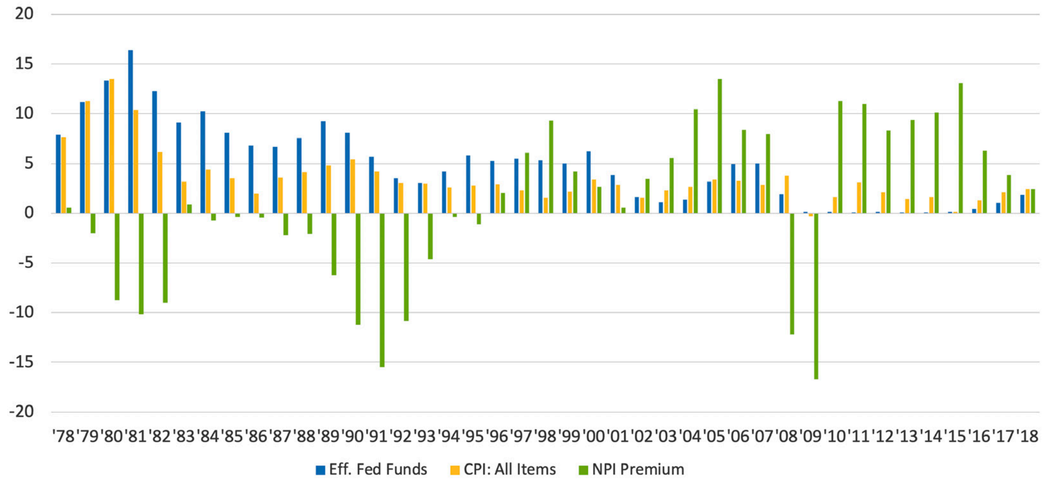
INVESTORS WITH LONGER INVESTMENT HORIZONS MUST CONSIDER INFLATION

EXHIBIT 1: COMPONENTS OF ASSET RETURNS



For illustrative purposes only. **Past results are not indicative of future performance.** Time period 1979-2018. Based on historical range for federal funds (source: Federal Reserve), S&P 500 (source: Bloomberg), NCREIF National Property Index (source: NCREIF).

EXHIBIT 2: US CRE PREMIUM HISTORY



Source: Federal Reserve, Bureau of Labor Statistics, NCREIF, Aegon Real Assets. As of December 31, 2019.

Decomposing the since-inception performance of US CRE along these lines shows a puzzling result. For more than a few years since its inception, NPI total returns offered no premium over the real rate and inflation. The shortfalls were most prevalent during the years before 1995 when CRE was considered to be an exceptional inflation hedge and when expected inflation was well in excess of the inflation that materialized (Exhibit 2). The tax shelter provided by CRE in the 1980s contributed as well. In that environment, investors were satisfied with the tax shelter and covering their inflation fears even with no premium above that.

After 1995, inflation expectations were more in line with reality. From 1995 to 2019, inflation averaged 2.2% and the real rate averaged 2.5%. Additionally, tax law changed eliminating much of the sheltering power of property ownership. Over the period, the CRE spread above inflation and the real rate averaged 4.9%. In contrast, from 1979 to 1995, inflation averaged 5.3% and the real rate averaged 8.5% as the Fed responded to its mandate to manage both inflation and employment growth. During that period, the CRE premium was negative. The lesson contained in this history is clear: Be careful when using history to craft expectations!

ANY UPSIDE TO CURRENT GROWTH EXPECTATIONS WILL REQUIRE FASTER POPULATION GROWTH AND/OR A SURGE IN PRODUCTIVITY GROWTH.

LOOKING FORWARD

Using the 1995-2019 history as a guide suggests that US CRE can again attain the 8-9% total return. With the historical 2.2% inflation rate and 2.5% real rate, the NPI premium would need to be roughly 4%, a spread indicated by its history. In addition, this historical period includes both the 2001 and 2008 recessions suggesting that a 2008-like virus recession in 2020-21 would not derail the long-term averages going forward. But, let's be careful; counting on this simple calculation based on historical averages might well bring disappointment.

Inflation averaging 2.2% could be too high for the years ahead. The Fed is projecting a 2% inflation rate for the long-term beyond 2022, but sub-2% has persisted through most of the last ten years suggesting some downside risk for the years ahead.[3] This is especially likely because the relationship between inflation and unemployment rates has disconnected from its historical pattern, making inflation forecasting highly uncertain.

Moreover, tepid inflation has helped the Fed to keep the federal funds yield very low which helps to keep borrowing secured by CRE very attractive. After holding at essentially zero from 2010 through 2015, the Fed tightened incrementally to reach 2.5% at the end of 2018. In 2019, easing to 1.75% was implemented in response to weakening global growth and unpredictable US trade policies. At the same time, several central banks abroad are maintaining negative rates also in response to weak global growth. The Fed's projections were calling for little to no change in 2020 but the economic threat associated with the coronavirus has prompted the Fed to cut the funds rate back to the zero bound. Longer term, a 2.5% average was projected but with a considerable range of possibility around it.[3] Since 2.5% appears to be the very peak of this cycle and since the federal funds rate is back to zero, it seems implausible that 2.5% will be the long-term average!

In sum, the historical 2.2% inflation and 2.5% real rate foundation for CRE investment performance may prove to be unreliable. Instead, the long-term opportunity cost of holding CRE and other risky assets may be lower than now expected, perhaps close to the pre-virus readings of a 1.5% inflation rate and a 1.75% real rate.

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A lower opportunity cost maintained over the long term combined with recovery from virus-related economic slowing will attract stronger capital flows than a higher opportunity cost and could thereby compress CRE cap rates further down from where they are now. This would bolster property values until a new equilibrium is established.

The Fed is projecting a 1.9% rate of growth over the longer-term,[3] which is slightly below the 2.3% posted for 2019.[4] Consider that the average between 1995 and 2019 was 2.5% or roughly 30% stronger![5] Slowing population growth and weak productivity improvements have contributed to the growth slowdown, along with demographic shifts as younger less experienced workers replace more productive retiring workers. A virus-recession will further constrain the average but less so if it is short-lived.

Any upside to current growth expectations will require quick economic recovery, plus faster population growth and/or a surge in productivity growth. Neither is on the horizon except for a modest boost in productivity as millennial workers mature. 2019 population growth was the slowest in over 100 years[6] and investment spending generally, and on research and development, has been mediocre.[4] Technology may deliver a surprise boost in productivity in the years ahead but, it is not on the horizon now.

Lackluster economic growth will have a moderating effect on property net operating income (NOI) growth which could slow capital appreciation despite any future cap rate compression. As a result, the historical premium on CRE might well fall short of its 5% historical average. Note than the premium has been declining to roughly 2.4% since reaching a cycle peak of 13.1% in 2015. (Exhibit 2)

CRE PREMIUM UPSIDE STILL POSSIBLE

Erosion in the long-term premium could be offset, however, if CRE supply additions adjust rapidly to weaker long-term economic growth bolstering NOI growth. Supply responsiveness to evolving market conditions has been evident in recent years in the tepid pace of office construction in the face of densification and in the miniscule addition to the stock of regional malls in the face of online shopping.

In addition, remember that the NPI is a proxy for CRE investment performance not an inventory. The NPI is a collection of portfolios managed by the investment entities that contribute to NCREIF. Over time, those portfolios evolve both in terms of geography and sector. For example, the number of NPI properties located in the Midwest declined from 15% in 2007 to 12% in 2019, while those in the West increased from 33% to 37%. The number of industrial properties increased from 38% in 2007 to 43% in 2019, while the number of office properties declined from 24% to 18%.[1]

Investor portfolios also evolve through acquisition of property types outside of the traditional apartment, industrial, office, and retail. Non-traditional property types include self-storage, student housing, lab space, senior housing, and manufacturing housing among others. Non-traditional property types can boost investment performance, but are not now captured in the NPI. Compositional changes such as these loosen the relationship between the CRE premium and macroeconomic growth. Such ongoing portfolio adjustments offer opportunity for a stronger CRE premium than otherwise.

HEDGING YOUR BETS

Altogether, the 8-9% unlevered CRE performance rule of thumb might well prove to be too optimistic for the long-term period ahead even in the absence of a coronavirus recession in 2020. Achieving that rule of thumb would require quick economic recovery, plus long-term supply constraints and compositional adjustments in portfolios to offset sub-2% inflation and tepid long-term economic growth. But, the relative attractiveness of US CRE to investors might be unaffected because returns for all asset types will be influenced by the same macro level forces. This implies that competitiveness across asset types will be determined by the speed and ease with which each asset type adjusts to the future. As always, investors are advised to hedge their bets through portfolio diversification and to monitor the evolution of investment performance drivers with care.

NOTES

1 National Council of Real Estate Investment Fiduciaries. As of December 31, 2019.

2 Board of Governors of the Federal Reserve System. As of January 29, 2020.

3 Board of Governors of the Federal Reserve System. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, December 2019.

4 Bureau of Economic Analysis. Gross Domestic Product, Fourth Quarter and Year 2019 (Advance Estimate), January 30, 2020.

5 Bureau of Economic Analysis. Real Gross Domestic Product, Percent Change from Year Ago, Annual. January 30, 2020.

6 US Census Bureau. December 23, 2019.

DEVELOPING HUDSON SQUARE

A HISTORIC CASE STUDY

By David Roll, Portfolio Manager,
Norges Bank Investment Management

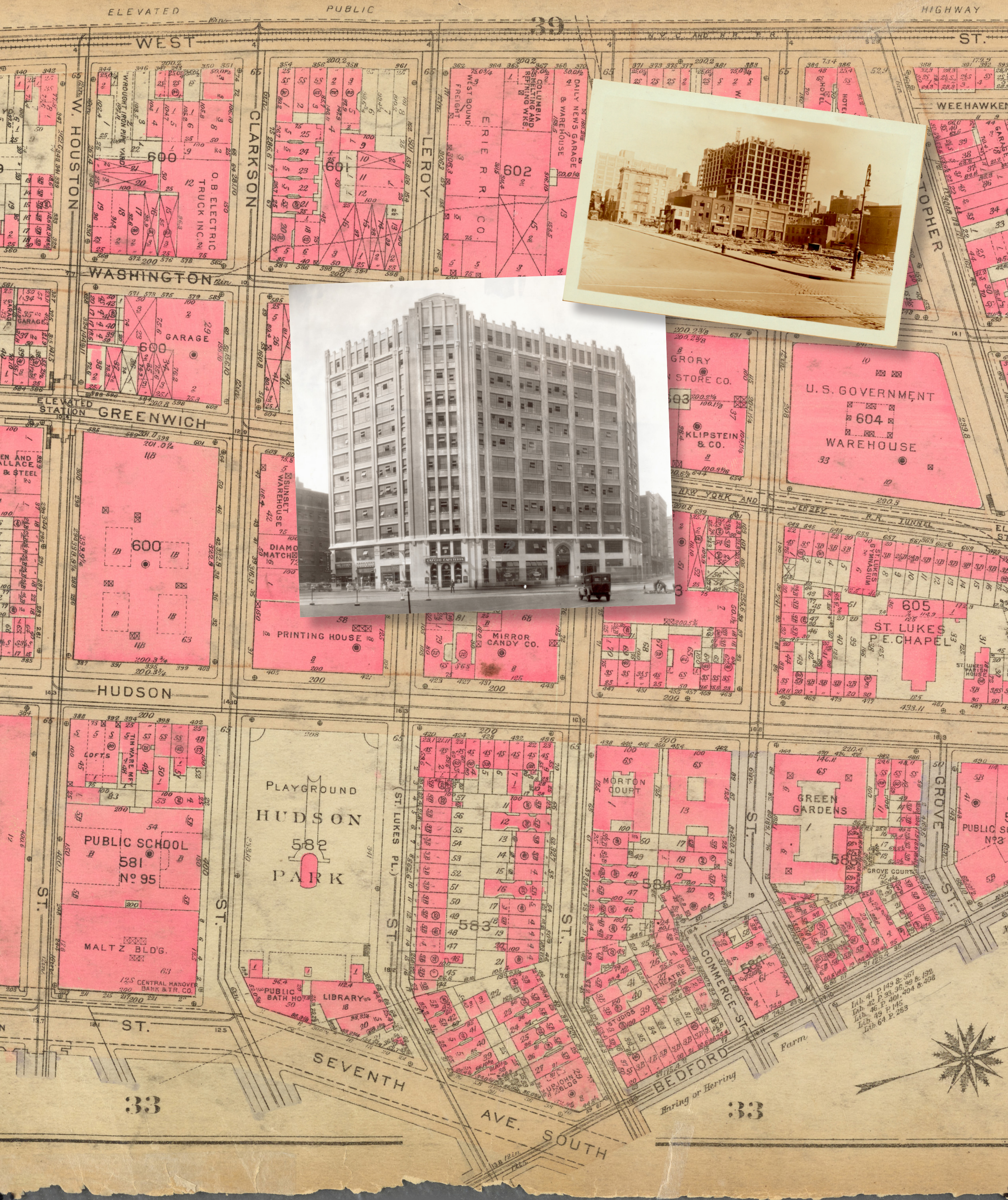
Grayson Hoffmann, Investment Manager,
Norges Bank Investment Management

SITUATED BETWEEN SOME OF MANHATTAN'S MOST SOUGHT-AFTER NEIGHBORHOODS – WEST VILLAGE, SOHO AND TRIBECA –

Hudson Square is poised to be the next iconic neighborhood in New York City after being long overlooked and regarded as primarily a manufacturing district.

In 2015, Norges Bank entered into a joint venture (JV) with Trinity Church Wall Street, the historic Episcopal parish church in downtown Manhattan, to provide the crucial restoration, renovation, and renewal investment to transform Hudson Square into the new creative edge of New York City.

(Bottom Left) 225 Varick, ca. 1930
(Right page) Map of Hudson Square, ca. 1930
(Top right) Construction of 345 Hudson Street, ca. 1930
(Center right) 205 Hudson Street, ca. 1930



THE HUDSON SQUARE RENAISSANCE IS TRANSFORMING THE ONCE QUIET NEIGHBORHOOD INTO A DYNAMIC AND CREATIVE 24/7 COMMUNITY.

THE HISTORY OF HUDSON SQUARE

Trinity Church was founded in 1697 when the Crown leased land known as King's Farm to Trinity for "60 bushells of winter wheat [sic]." Almost a decade later, in 1705, Queen Anne fully gifted the land to Trinity Church, beginning the story of one of Manhattan's largest landowners.

The area now known as Hudson Square has, over time, housed the Mansion in King's Farm, George Washington's headquarters, which later was owned by Aaron Burr, Vice President under Thomas Jefferson, and American businessman John Jacob Astor.[1] In 1802, Hudson Square became the city's first private park development and Trinity introduced 99-year residential leases to the neighborhood. By the late 19th century, Hudson Square had developed into a commercial center known as the Printing District, the epicenter of new ideas and communication.

Most of the buildings that came to be constructed within the JV's 6 million square foot portfolio—featuring vast open floorplates and strong structures—were constructed to accommodate heavy commercial printing equipment and industry. With the eventual decline of the printing medium, these spaces were repositioned as lower-rent offices and storage units, until a small community of creative tenants, such as architects, independent advertising agencies, boutique investment firms, and others, became drawn to the authentic heritage of the neighborhood and pioneered the movement to the West Side.

Hudson Square has since become renowned for its commercial and retail tenancy, consisting of thought-leaders and idea-generators such as Google, Disney, Publicis, Warby Parker, TED, and Squarespace, all of which are finding inspiration in the area's historic buildings and are shaping the future of business and culture today and for years to come.

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TRANSACTION THESIS

The formation of the joint venture between Norges and Trinity in 2015 was a long process that began when, rather than bidding for 100% of four assets as marketed, Norges Bank placed a bid for 48% of 11 assets. Since the original transaction in 2015, the venture has expanded through the acquisition of 375 Hudson in 2017, and the forward purchase of two development sites in 2019.

From the outset, the business plan was to bring Hudson Square to an equal perceptual footing with West Village, Soho, and Tribeca by repositioning existing stock, developing vacant land, and upgrading and increasing the retail offering. On top of the venture developments, the joint venture also supported residential development that has paved the way for more mixed-use activity and has further increased the appeal of Hudson Square as a dynamic, around-the-clock community centered around its creative tenancy.

ORIGINAL USE AND ATTRIBUTES OF THE HUDSON SQUARE ASSETS

The buildings within Hudson Square, largely constructed in the 1920's, were predominately built to cater to the printing industry. They were designed to carry a heavy weight load, as printing presses utilized into the 1930's weighed in at a few tons. As a result, the floor load capacity in most of the current assets is 200-250 pounds per square foot, compared to a modern office load capacity of 50 pounds per square foot.

The framing structures are reinforced concrete with ceiling heights upwards of 13 feet, and the buildings range from 12 to 17 stories tall. Because these buildings stand taller next to lower-height buildings in the West Village, they offer a scenic protected view corridor. The largest assets are roughly 1 million square feet each, while the smallest stands at 60,000 square feet, and most structures had large floorplates but inactivated roofs at the time of purchase. Aside from the high ceilings, the assets also featured large windows and nicely shaped mushroom shaped columns.

(Left) 205 Hudson Street today
(Right) 225 Varick Street today

Renovation of the lobby at 155 Avenue of the Americas, before (Left) and after (Rright)

REPOSITIONING THE ASSETS

At the time of acquisition, most of the assets were in need of a refresh to varying degrees. Consistent with the business plan of the JV, these buildings were programmatically repositioned with a common goal—to enhance tenant productivity and creativity, starting with activated rooftops and lobbies in each building. In fact, recent leasing has been contingent on both in order to achieve the rent levels set out in the business plans. The roofs serve both as private and recreational space, providing siting for building-wide amenities, while the new lobbies include retail offerings and lounge seating.

As the original structures are strong and able to carry more weight than required by modern office users, slab openings have been created in some buildings to connect multi-level tenant spaces, allowing for improved internal occupier circulation as well as interesting multi-floor gathering spaces for town halls and staging for group events that can reinforce community.

Most of the recent leasing activity has also been centered around technology, advertising, media, and information (TAMI) tenants, who seek collaborative, large-floorplate layouts that allow for efficient space use and open floorplan design, making Hudson Square buildings ideal working environments.

PORTFOLIO LOCATION AND USAGE OVER TIME

The twelve buildings are mostly located along the Hudson Street corridor ranging from Canal Street in the south to Morton Street in the north. The buildings are primarily focused within two clusters: one at the intersection of Canal and Hudson; the second at the intersection of Houston Street and Hudson. In this way, the portfolio is ideally located at the crossroads of West Village to the north and Tribeca to the south, with several additional assets located along 6th Avenue along the border of Soho.

The clustering of the portfolio has allowed the JV to offer flexible and scalable office space solutions to tenants looking to grow, contract, or relocate within the neighborhood as their business needs change over time.

The portfolio also includes almost 200,000 square feet of retail space across its existing 12 commercial buildings. A variety of users call Hudson Square home, including well-known retailers such as Shake Shack, Dig Inn, Essen, and Starbucks, alongside smaller, creative tenants such as Blue Bottle, Chillhouse, and Ducati. As the Hudson Square area continues to grow, the JV is focused on bringing retail to its buildings not only for its own portfolio, but to strengthen the neighborhood cohesion of Hudson Square.

THE PORTFOLIO ALSO INCLUDES ALMOST 200,000 SQUARE FEET OF RETAIL SPACE ACROSS ITS EXISTING 12 COMMERCIAL BUILDINGS.

HUDSON SQUARE HAS BECOME ONE OF THE STRONGEST OFFICE SUBMARKETS IN NEW YORK.

NEIGHBORHOOD EVOLUTION

The Hudson Square renaissance is transforming the once quiet neighborhood into a dynamic and creative 24/7 community. No longer overlooked, Hudson Square's deep roots and unique location between some of the most sought-after neighborhoods in Manhattan has led to incredible growth in the neighborhood without compromising its authentic history. Facilitated by the Hudson Square Properties JV (Trinity Church, Hines, and Norges Bank), along with many other landlords and companies, the neighborhood has seen a surge in investment and restoration that has elevated Hudson Square to become one of the strongest office submarkets in New York.

About the Authors

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Note

[1] The correlation between Burr and Astor traces back to Burr's duel with former Secretary of the Treasury Alexander Hamilton in 1804. Held as the culmination of a longstanding feud between the two statesman, Hamilton died from a bullet wound after the duel, and Burr fled to the south to escape negative sentiment against him in New York. In his leave, his creditors (to which he was materially indebted) seized his assets, sold his furniture, and sold his Richmond Hill estate (located within the King's Farm area) to Astor, who would ultimately subdivide it and build more homes, some of which still exist today. The transfer would likely have never happened if Burr did not kill Hamilton.

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