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OCTOBER 24 DENVER

A&E:

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NOVEMBER 07

L&C: LEGAL & **COMPLIANCE**

DECEMBER 06 CHICAGO C&I: CAPITAL

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ANIM

he phrase "Animal Spirits" is attributed to John Maynard Keynes, perhaps the most influential economist of the 20th Century. In his 1936 The General Theory of Employment, Interest and Money, Keynes posits that many of our decisions are driven by "animal spirits a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities." Referenced by writers as diverse as Thomas Hobbes, Jane Austen, and Arthur Conan Doyle, animal spirits as a driver of economic expansion is based on Keynes' usage. It describes both a basis for optimism through increased risk taking, as well as for concern from excess exuberance.

Forty years after Keynes' magnum opus, scientists were attempting to explain the enormous gaps in the fossil record that seemed to contradict the continuous and gradual evolutionary change at the species level assumed by Charles Darwin. Stephen Jay Gould and Eldridge Niles suggested that biological change does not occur on a regular but on a mostly discontinuous manner with long periods of stasis punctuated by large change during shorter periods in geologic terms. They coined the phrase "punctuated equilibrium" to describe their theory, which has become very influential in evolutionary biology.² The theory reflects our common sense impression that during long periods of time little changes and then everything appears to change at once.

Following the surprises of 2016—from Brexit to the US presidential election—the two metaphors of animal spirits and punctuated equilibrium provide a description of recent events. After initially falling after the November elections, the US equity markets have soared to a long series of new record levels. This climb has continued into 1Q and interest rates have increased, reflecting higher growth and inflation expectations. Heightened growth expectations did not follow from the disappointing 4Q

ALSPIRITS

& PUNCTUATED EQUILIBRIUM

By Matthew H. Lynch Managing Director, UBS Realty Investors

annual GDP growth rate of 1.9%, below both 3Q's 3.5% rate and expectations. 2016 annual GDP growth of 1.9% matched the disappointing 2015 result, and is just below the 2.1% average annual growth rate since the recession ended. The expansion is now longer than the historical average, but at an average growth that is the lowest since at least 1949.

Observers have attributed the surprising market outcomes to animal spirits, somnolent for many years. The market appeared to expect growth to increase from major changes in fiscal policy, a reduction in regulation, and particularly tax policy. For the first time in three decades the sclerotic US tax system, which has an outsized effect on commercial real estate, stands a reasonable chance of meaningful reform. Some real estate fossils remember the revolution of 1986, the last time the tax equilibrium was punctuated. The proposals would be the most significant change since the Reagan administration, but the exact form of reform and their effects on real estate are difficult to assess. Other observers cite more common factors behind the rally, such as a recovery in earnings (acknowledging that reduced tax and regulatory burdens are meaningful), solid job growth, improved consumer and business confidence, higher inflation, and broad-based improved growth (including in Europe). What is likely is that observers have underestimated the time it will take for meaningful policy changes to be enacted. Perhaps animal spirits and punctuated equilibrium describe the change that is coursing through the US economy.

As we enter 2017, the surprises of the past year have led 2016's "ninth inning" baseball simile to give way to this year's hockey's "second period" metaphor. The economic cycle appears poised to extend its lengthy low-trajectory expansion, perhaps with higher growth over the intermediate term, and we find that the following three broad themes describe our basic approach and outlook:

 Our prediction that US commercial real estate returns would moderate from their double-digit level in core has been vindicated as total returns have stepped down to lower but still attractive returns—500 basis points returns plus inflation. The solid income returns of real estate provide an anchor to mixed-asset investor portfolios. Income returns remain well above debt levels and value-added transactions are still available with leveraged double-digit returns. Green Street estimates that commercial values rose only 3% during 2016.

- At quarter end, the spread between US commercial real estate and the risk-free rates moved toward its long-term level, narrowing significantly as interest rates increased and cap rates remained flat, but remaining above the familiar touchstone of reasonable valuation levels of 200 basis points in at least one large institutional portfolio. Following the election the 10-year Treasury spiked 50 bps, settling at around 2.40%, unnerving bond markets, but ending near the rate of one year ago. Higher growth and inflation expectations increase the chances of an earlier Federal Reserve policy increase, but US rates are already higher than global rates, and real estate generally performs well relative to other assets in such an environment.
- Commercial real estate fundamentals have entered a more normal phase with balanced aggregate demand and supply. The key net operating income (NOI) metric remains positive, settling at a lower level, reflecting higher vacancy in office, increased construction in apartments and improving retail income levels. As HVCRE (High Volatility Commercial Real Estate) enters the vocabulary, construction financing is increasingly difficult to obtain, suggesting that excess supply will not cause the end of the cycle. As appreciation moderates toward long-term levels, income-focused strategies should be seen as atractively cycle-resistant.

Source for all data, if not stated otherwise: UBS Asset Management, Real Estate and Private Markets.

¹ Keynes, John M. (1936). London. Macmillan. Pp. 161-62.

² Gould, Stephen Jay (2002). The Structure of Evolutionary Theory, (Cambridge, Harvard University Press), passim.





DRIVING SUSTAINABILITY REAL ESTATE

Jennifer McConkey,

Senior Director, Operations & Sustainability at Principal Real Estate Investors

of Real Estate Investment Trusts (NAREIT), the U.S. Green Building Council (USGBC), and many other organizations collect, analyze, and aggregate data on sustainability and corporate responsibility issues in commercial real estate.

The industry has rapidly progressed from having too little information regarding sustainability and real estate to information overload. That said, the focus has now turned to determining what information is vital and is key in investment decision making. Moreover, what specific data benchmarks help identify risk, or highlight new opportunities? In addition, how can investment managers zero in on what is most important?

It is a growing belief among investors that good sustainability performance is a proxy for good investment management and raises awareness on what is material in commercial real estate. For instance, recent efforts initiated by policy and financial organizations have been seeking to identify what materiality means to the investment community. One definition worked on by the Sustainability Accounting Standards Board (SASB) defines materiality for a variety of commercial sectors, with the intention of requiring disclosure of material sustainability information in future 10-K and other financial filings. Findings from McKinsley & Company¹, MIT Sloan Management Review², BlackRock³, and Mercer⁴ highlight the discussion on portfolio exposure to "climate risk" and the meaning to investment managers.

2. RESILIENCE

Managing real estate in an increasingly volatile environment

The concept of resilience is gaining more attention among investors of all asset classes. For real estate, the term resilience represents a mindset that examines how to mitigate risk, anticipate issues, and protect investments from negative impacts due to climate change, natural disasters, and "black swan" events. The Urban Land Institute (ULI), American Planning Association, and USGBC5 have jointly defined resiliency as "the ability to prepare and plan for, absorb, recover from, and successfully adapt to adverse events." They also examine the economic imperative to successful resilience strategies, stating, "the promotion of resilience will improve the economic competitiveness of the United States."

The increasing attention to resiliency strategies is also apparent in public policy initiatives and private sector research. For example, significant efforts are emerging particularly at the city level and discussions on resilience as part of public policy have been accelerating. The importance of resilience is also reaching the private sector, major insurance, re-insurance, and risk companies. These entities are leading research and analysis on the impacts of climate change, and updating their models to incorporate climate risk. The World Economic Forum's "Global Risks Report" identifies "failure of climate change adaption and mitigation" as one of the most concerning risks for its members. Considering these developments, resilience strategies should integrate with investment management practices, necessitating improvements in underwriting and managing real estate, and mitigating risks across geographic, market, end ecosystem perspectives.

3. PERFORMANCE RESULTS

Greater expectations to achieve and evaluate

A variety of factors are now driving increased market expectations for performance. However, the most important is the signing of the Paris Climate Accord. Signed in 2015, this watershed event brought significant implications for real estate. Almost 200 countries signed the Paris Accord in an effort to accelerate and intensify a "transition to a near-zero carbon global economy in this century." Because buildings account for about one-third of global carbon dioxide emissions, real estate will be at the center of these policy activities, with many initiatives expected to target buildings and urban developments.

Setting "science-based targets" has become a growing effort in corporate sustainability programs. This methodology creates enterprise carbon-reduction targets in a manner consistent with meeting the two-degree global maximum. More than 200 companies are participating in the Science Based Targets initiative.

It is also worth noting that property performance is the last frontier on the Global Real Estate Sustainability Benchmark (GRESB) assessment, and the primary way for real estate investors to continue to demonstrate leadership in sustainability. As more companies begin to implement policies and management strategies for environmental, social, and governance factors, the green certification and actual energy, water, and waste performance of properties will define the true leaders in our field.

4. INTELLIGENCE

Harnessing data, analytics, and new technology in real estate

The abundance of operational, financial, and environmental data is reshaping building management and analysis. The increase in building intelligence is transforming how and who operates the buildings, and this has added complexities to landlord and tenant relationships.

The rapid growth of this industry has made it difficult to stay up to date on the new technology available. By 2021, it is expected that over 3.6 billion connected devices will be installed in commercial buildings. These devices could come in many forms lighting sensors that personalize control of individual fixtures, occupancy and temperature sensors, access control, etc.

However, the explosion of data brings challenges for investment managers. Having thousands of data points within a building provides no value if the data is not being used to make informed operational and business decisions. In the coming years, the industry will need to work towards turning this new data into intelligence, making it digestible, actionable, and useful.

5. EXPERIENCE

Navigating new tenant expectations and tools for engagement

The occupant experience has been emerging as a major industry focus and highlighting the importance of blending sustainability, intelligence, and experience. It is worth noting that 90% of the costs associated with running a building come from employee salaries and benefits. Just 10% is attributed to the building's operating costs, including energy, maintenance, and mortgage/rent, among other things.

Worker health and productivity are emerging as strategic priorities among corporate real estate leaders, and the industry continues to innovate on space design and the resulting impacts of how people interact with each other. Health design trends include integrating amenities and features such as access to daylight, quality of lighting, acoustics, ventilation, and thermal comfort into typical building designs. A study by Harvard⁸ found the increase in ventilation resulted in a significant improvement in cognition. This trend is leading to a shift in mentality from leasing square footage, to leasing an experience.

6. RESEARCH

Growing body of research by real estate and leading academics

There is an increasing amount of research being conducted by some of the leading names in real estate and academia. Recent studies have focused on the linkage between sustainability and financial performances, as well as on improved productivity, occupant experience, and health and wellness. Even with this expanding body of research, barriers exist that hinder progress. For example, real estate is intrinsically illiquid limiting sample sizes of transactions and comparables. Financial data is also held closely and is considered proprietary and confidential.

To address some of these barriers, Principal Real Estate Investors participated in a pilot Financial Research Study with the Department of Energy to study over 130 office properties. Building, leasing, and financial information were analyzed to determine if there were correlations between green certification and financial performance. Full results of the DOE analysis will be publicly available soon, and we hope to release further analysis done on tenant satisfaction data in the fall of 2017.

IN SUMMARY, each of these six trends are interrelated and influence each other. Data and intelligence enable new sustainability and engagement strategies. Environmental performance is tied to financial performance, and overlaps with the health and productivity of building occupants. Understanding the impact of climate change influences how real estate investments need to adapt and prepare for adverse events. Each of these trends represents new market realities in the new competitive landscape. In short, real estate now needs to be sustainable, resilient, smart, and engaging. Fiduciaries and investors need to understand what the main issues are and develop strategies accordingly.

Portions of this paper were previously released at the Principal Real Estate Investors Blog.

- ¹ Sustaining Sustainability: What Institutional Investors Should Do Next on ESG. McKinsey & Company, Private Equity and Principal Investors
- ² Investing for a Sustainable Future Investors Care More About Sustainability Than Many Executives Believe. MIT Sloan Management Review
- ³ Adapting Portfolios to Climate Change Implications and Strategies for All Investors. BlackRock Investment Institute, Global Insights
- ⁴ Investing in a Time of Climate Change. Mercer
- ⁵ Returns on Resilience The Business Case. Urban Land Institute
- ⁶ The Global Risks Report 2016, 11th Edition. World Economic Forum
- 7 L'Accord de Paris: A Potential Game Changer for the Global Real Estate Industry. Urban Land Institute Center for Sustainability
- ⁸ The Impact of Green Buildings on Cognitive Function. Harvard T.H. Chan School of Public Health, Center for Health and the Global Environment

What we can learn from the military's adoption of clean energy

By Jon Powers,Co-Founder of CleanCapital

Kevin Johnson,Co-Founder of CleanCapital

AMERICAN leadership and engagement has been instrumental in demonstrating the transformative market potential that clean energy technologies offer to create local jobs and mitigate the impacts of climate change.











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erving in Iraq as part of Operation Iraqi Freedom, we both had life changing experiences that have led to careers focused on continuing our service to our country. It was those experiences that led us to personally understand the high price that our country pays in blood and resources to secure oil supplies, from protecting desert fuel convoys to keeping international **shipping lanes open for oil tankers.** It was also these experiences that led former Commander of the 1st Marine Division, and the new Secretary of Defense, General James Mattis to famously comment on the need to "Unleash us from the tether of fuel." Like many veterans, we both left the service to enter the clean energy sector with a commitment to secure our nation's energy future and combat the impacts of climate change.

Prior to co-founding CleanCapital, we continued our service in different ways. Jon was appointed by President Obama to join the White House as the Chief Sustainability Officer of the Federal Government. This is a role many in the real estate sector and private sector would recognize immediately. Kevin, a West Point graduate, left the military and lead M&A and business development for several of the world's leading renewable energy companies. We both realized that we could continue to serve our country by making the case for clean energy innovations here at home. But, it also became apparent that many in the private sector like WalMart, Apple, and Google were recognizing the global trends and beginning to take action in this sector. We will explore the changing landscape of energy and look at how leaders in the real estate sector can take action.

Landscape of Changing Energy Markets

The world is at a transformative moment in terms of how we produce and use electricity. Global powers are experiencing a major shift in how their electricity is being produced. The traditionally fossil fuel dominated electricity marketplace is being replaced by new low carbon sources, and many developing countries are also capitalizing on these innovations. Development of distributed clean energy solutions are allowing nations to leapfrog generations of outdated technologies. Clean, distributed energy now allows solar panels to sit on a residential or commercial rooftop that powers storage batteries in the basements no matter how

remote a community may be. The development and policy implications of these types of advancements are truly significant.

Market demands are clearly the driving force accelerating the rapid deployment and adoption of clean energy in both developed and emerging markets across the world. American leadership and engagement has been instrumental in demonstrating the transformative market potential that clean energy technologies offer to create local jobs and mitigate the impacts of climate change.

For instance, the solar market continues to grow and prove that solar is economically successful and a force that has value across markets, from the Department of Defence to commercial real estate.

For the first time ever, in 2016, solar ranked as the number one source of new electric generating capacity additions on an annual basis. This growth in solar has been led by falling prices. The cost to install solar has dropped by more than 60% over the last 10 years, leading the industry to expand into new markets and deploy thousands of systems nationwide.

As the solar industry has matured, the decline in costs has been fueled by a number of factors. For example, the supply chain trimming costs helps cut risk premiums on bank loans, and pushed manufacturing capacity to record levels. By 2025, solar may be cheaper than using coal on average globally, according to Bloomberg New Energy Finance.

Better technology, the economies of scale, and better manufacturing have been key in boosting the industry as each generation of more efficient solar panels provide more cost effective systems. Five years ago, a solar panel cost over \$5 per watt with 15% efficiency. Today, you can buy the same panel for \$0.45 cents per watt with 20% efficiency. The trends are clear, solar is getting cheaper at an accelerating rate.

Lastly, stable and predictable policies have also been driving down costs. President George W. Bush signed the Energy Policy Act of 2005 with tremendous bipartisan support and ushered in solar, along with other renewables. It established the Section 48 Investment Tax Credit (ITC), providing a lucrative 30% tax credit for solar projects. Over the course of the next few years, other policies aligned at the state level, and then a combination of the ITC and appropriate technology advancements mentioned above bolstered the solar industry, while driving down costs.

Depart of Defense (DoD) Leading By Example

If our Federal Government were a corporation, given the size and scope of its operations, it would be the biggest business in the United States. The DoD alone has over 500 major installations around the world and manages more than 500,000 buildings with over 2.2 billion square feet. That is over three times the square footage Wal-Mart currently operates. Energy touches every part of the military's mission, and domestically it must ensure energy security and reliability to fulfill that mission. For example, drone flights over the middle east piloted out of Air Force hangars in Nevada, vital communications systems supporting Naval fleets in the Pacific, or cyber security operations all need to be able to operate regardless of how the local grid is up and running.

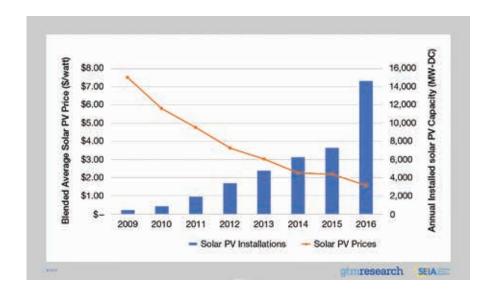
The military facility energy budget alone is \$4 billion, just to keep the lights on. As such, to better manage costs and ability to always meet its mission, the DoD has been strategically evaluating strategies to fundamentally reduce its energy footprint.

For the military, having such a large installation footprint can be a challenge, but it can also be an incredible opportunity. These installations display many of the same characteristics as a university campus or small city or town with residential, industrial, and business sections that all require different levels of energy demand. The military asked for a study of the energy production capability

on its bases by the Department of Energy's Pacific Northwest Laboratory which estimated that 90 percent of the critical power needs could actually be met by renewable energy resources

To tackle these challenges, the military is turning more and more toward renewable energy. For instance, each of the branches (Army, Navy and Air Force) have been pursuing a 1 GW renewable energy goal, and the Navy met theirs years ahead of schedule. They are also looking to drive efficiency and sustainability within their buildings. This is an area where the military is learning from the innovations within industry and using systems such as the US Green Building Council's Leadership in Energy and Environmental Design (LEED) standards to design and certify more sustainable buildings.

They are relying on a variety of solutions that look similar to what is happening in the commercial and industrial real estate market. This includes distributed generation solutions like rooftop solar arrays, microgrids, onsite storage, but they are also executing long term power purchase agreements. One key development over the last few years is the emphasis in using third party financing to fund these initiatives. Congress provided the DoD with a variety of authorizations to utilize alternative financing by allowing the private sector to invest in military bases to own and operate projects. This allows the DoD to reap the benefits of project ownership without needing to overcome the sometimes impossible hurdle to provide the upfront capital required for construction.



he world is at a transformative moment in terms of how we produce and use electricity. Global powers are experiencing a major shift in how their electricity is being produced.

> The military's leadership and progress is commendable, but it is also key to recognizing the many in the private sector who are also leading by example. Hurricane Sandy was a major instigator to these efforts. According to CNN Money, the total cost of property damage from this super storm is estimated to run between \$10-20 billion, but the cost of business interruption can go as high as \$25 billion. Major operations up and down the East Coast were shut down. Local utilities in places like Delaware, New York, New Jersey and Connecticut could not provide reliable power to customers for weeks. Whether it was big box stores, office buildings, or data centers, finding the fuel to put into their diesel generators was nearly impossible as they competed against hospitals and military operations during the clean up.

> As a result, many companies stepped back and re-evaluated their operations. Companies like Wal-Mart, Google, and Prologis set significant goals like utilizing nearly 100% renewable energy for their operations, and also looked at critical measures for reliability. Google is on track to reach this goal in 2017, while receiving serious cost savings along the way. Prologis reported in 2015 that it has over 149 MW of solar generating capacity. Being a mega-corporation should not be a requirement to be a part of this effort as commercial and industrial real estate comes in all shapes and sizes. There are some key lessons though that can be learned from the military and these corporations.

They include some of the following:

ESTABLISH AN ENERGY STRATEGY

it is important to look at things holistically. Combining things like energy efficiency and renewable energy can make it most effective.

DON'T GO IT ALONE

In a capital constrained environment, looking at partnerships and acquisition methods like Solar Leases or Power Purchase Agreements can be ways to utilize others expertise, de-risk the project, and actually save money.

Taking Action

These lessons have many applications. For portfolio managers, they can look to take steps in addressing their energy needs. For investors, there are real opportunities as well. The key to continued growth of the clean energy sector will be investment. President George W. Bush's former Secretary of Treasury, and former Goldman Sachs CEO, Hank Paulson points to the opportunity in "green investing" in his latest op-ed in the New York Times. \$90 trillion is a large price tag, but it should not be seen as a bill, rather a worthy investment. The good news is clean energy proves to be a great investment and is already outpacing capital in fossil fuels thanks to large institutional financial backing. Despite this rapid growth, there is still a dramatic funding gap, and in order to bridge that gap, we need to be able to access the collective private capital available and capitalize on the clean energy revolution.

At CleanCapital, we look at solar and other clean energy projects as an asset class similar to a real estate asset, our due diligence and underwriting is similar to what is widely practiced in private equity funds, and our asset management resembles what is done by REITs. Solar is a great investment because the yields are real. This is the unique opportunity that operating, cash-flowing solar projects provide, and they can be a great investment for a broad set of investors. Data models now provide significant clarity on the revenue coming in over the life of solar projects that comprise these deals. Institutional investors, family offices, or even individuals, who may not like the risk exposure of new build projects can now get into solar through operating assets. This is the evolution of solar finance.

CleanCapital is accelerating clean energy by creating an online marketplace that provides opportunities for investors and access to capital for project developers, through a fintech platform that is simple, safe and secure. CleanCapital is reaching the next phase of solar energy by providing everyone access to these lucrative investment opportunities and funding the clean energy economy. Learn about upcoming investment opportunities by contacting us at CleanCapital.

Jon Powers is an Iraq Veteran and Co-Founder of CleanCapital. He also served in the White House as the Chief Sustainability Officer of the Federal Government and also as the US Armv's first Special Advisor on Energy.

Kevin Johnson is an Iraq Veteran and Co-Founder of CleanCapital. Kevin, a West Point graduate, transitioned from the military and lead M&A and business development for several of the world's largest renewable energy companies.





Sustain-ability:

Secret Sauce for Smart Acquisitions?

Billy Grayson, Founder and Principal, Bent Branch Strategies



"Diligence is the mother of good luck"

- Benjamin Franklin

n real estate transactions, no good deal gets done without painstaking due diligence. A real estate acquisition team reviews every aspect of a potential transaction, looking for hidden risks and undercapitalized opportunities.

Until recently, "sustainability1" was not a major component of this due diligence process. Acquisition teams looked at environmental regulatory and legal risks, but by and large this was a defensive strategy to avoid substantial cleanup and legal costs in a property acquisition. Increasingly, however, leading companies are using sustainability as a lens to identify hidden risks and under-capitalized value in the acquisition process.

Sustainability in the transaction landscape – is the investment industry figuring it out?

In their recent survey of Private Equity firms, PriceWaterhouse Coopers found that 83% had established a responsible investment policy and 60% of these firms always screen target companies for environmental, social, and governance (ESG) risks pre-acquisition. However, these same firms are still in the early stages of developing strategies to value ESG in acquisition - only 21% of these same firms were putting a specific valuation on environment, social, or governance initiatives of their acquisition targets².

In real estate investment, more and more companies are integrating sustainability/ESG into their acquisition due diligence process. While some of this activity is driven by the investment community, companies are finding that integrating specific, material sustainability metrics into the investment process can help them identify opportunities to negotiate a better deal, add value during their hold period, and leverage sustainability improvements to increase asset value before disposition.

Avoiding unforeseen risk, and capitalizing on known risk

Why are companies looking at sustainability in transactions? Ultimately for the same reasons as other material items in due diligence - they are hoping to uncover opportunities to unlock under-capitalized value in a target, and looking to avoid unforeseen downside risk.

For many sustainability leaders, their first experience working with the acquisition team is to conduct due diligence on an acquisition target's sustainability certifications. According to Sara Neff, Senior Vice President of Sustainability at Kilroy Realty, this verification role is just as important as looking for hidden value in a new asset. "Confirming a building's "green" certification during acquisition is really important. Some buildings may be advertised as LEED or ENERGY STAR-certified, but may

have let their certification lapse, or have not completed the certification process in the first place. Finding this out early will help the acquisition team accurately price these attributes, and get a discount over a building that has a valid, current LEED or ENERGY STAR certification."

Sometimes this downside risk of an acquisition target (once known) can turn into an opportunity - for real estate leaders with experience in LEED and energy efficiency, paying less for a building that had let their LEED or ENERGY STAR certification lapse, then working to improve performance and certify it post-disposition can help make the building more competitive in major markets at a low price. For a developer adept at redeveloping brownfields, discovering soil and water contamination can be a good thing - once this cost is reflected in the deal, an efficient developer can get a property in a great location at a great price, and leverage their experience to efficiently remediate the site for redevelopment.

Old tools, new lenses

In tackling sustainability evaluation of potential acquisition targets, sustainability leaders are finding that the tried-andtrue tools of the acquisition process can be leveraged for their sustainability due diligence. For companies working on due diligence across industries, they often find that what they need to begin a sustainability assessment has already been collected by the acquisition team. According to Dan Weed, VP and Leader of Transaction Services at TRC "We usually start by going into the data room and seeing what's there. Usually there will be enough information to identify the 4-5 most material environmental risks in a transaction. From there we will develop specific risk questions based on these potentially material issues."

Anna Murray, Vice President, Sustainability at Bentall Kennedy has also found that looking for sustainability opportunities is already part of how their acquisition team is assessing buildings and the market. "Sustainability criteria is included as part of our acquisition due diligence process. This process considers green building certifications and ENERGY STAR scores. It also ranges from including sustainability-related key performance indicators in the initial building condition assessment to considering external factors such as walkability and transit scores."

For Laura Craft, Head of Global Sustainability at Heitman, the property inspection and commissioning during an acquisition often uncover other sustainability opportunities. "Many sustainability opportunities are identified during due diligence by physically walking the property for outdated lighting and water fixtures and by talking with the property team about the completed and proposed efficiency improvement projects for the property."

While sustainability leaders are relying on traditional acquisition due diligence tools, they are also taking advantage of new ways to look at the data in the data room. Sara Neff stresses the importance of the EPA's ENERGY STAR Portfolio Manager tool for energy and water data. "We always take data from the due diligence process and drop it into ENERGY STAR - this helps us make sense of the data through benchmarking it against other buildings in its class and geography, and determining how far it has to go to meet green building criteria (if it is not there already)." For Cavarly Garret, Executive Director of Global Real Assets at J.P. Morgan Asset Management, tools to measure walkability of buildings help round out the analysis of location "Walkscores and transit scores give us a better understanding of a property's competitive position." Laura Craft's team at Heitman leverages ULI Greenprint's environmental data management software "to further track, report, benchmark, and analyze energy, emissions, water, and waste performance." Benchmarking buildings using these sustainability tools helps to understand operational performance compared to peers in the market, and can help a buyer estimate what efficiency gains are possible for a building.

Addressing social and governance issues in due diligence

For many companies, evaluating sustainability in acquisitions is primarily focused on environmental risks and opportunities. But for companies looking to build long-term relationships with JV partners, LPs, or other investors, social and governance risks may be even more important to their due diligence process. Cavarly Garret from J.P. Morgan summed up this sentiment: "Governance issues are very important to J.P. Morgan. We have zero tolerance for corruption and bribery. These matters are very important when selecting JV partners." Management to prevent bribery and corruption is a top governance issue in most investors' screen, but for companies with a global reach, issues around child labor, forced labor, worker health and safety, and disaster preparedness are also becoming a part of partner screens in investment decisions.

According to Karen Lutz from TRC "In companies operating in highly regulated industries or that have operations in highrisk countries, this due diligence needs to be expanded to include a wider range of social risks, as well as environmental risks." Labor risks are an especially important consideration for companies operating on a global scale, or who are employing especially vulnerable populations in their operations. One Private Equity company reported that they walked away from a long-term JV partnership after reviewing their labor policies and social impact controls of their potential partner a year later this fund was implicated in a major international labor violation as part of a development project.

Preparing for Disposition

During the disposition process, it is important to make sure these improvements are highlighted to appraisers and the potential buyer to ensure their value is reflected in the sale price. This can be difficult, as most appraisers and buyers are looking at historical prices and market comps to determine a buildings value.

Leading sustainability managers are active in ensuring value generated from sustainability improvements is captured in the disposition process. Bentall Kennedy commissioned their own study in 2015 to prove that their sustainable buildings had lower operating expenses and better renewal rates than their uncertified peers in the same markets³. Other leading REITs have worked with the Institute for Market Transformation and the Appraisal Institute to help appraisers learn how to value green building investments and certifications⁴. By educating all actors in a transaction about the value of sustainability investments, it is more likely that all of them will factor this into the sales price of an asset.

While research and education help prove the value of sustainable investments, sometimes the easiest way to ensure a sustainability improvement is captured in a real estate disposition is to turn it into rent or net operating income. When pursuing their first major renewable energy contract, Kilroy ensured that the long-term agreement was structured so that the solar developer paid rent to Kilroy along with the

contract to sell renewable energy to the building. According to Sara Neff "We had to find a way for our deal team to get comfortable with the increased asset value associated with on-site solar. We found that a 3rd party contract that paid us rent for on-site solar worked the best – by adding additional rent to the building over a 10 or 20-year term, this could be included in projected future cash flows, and increase value at sale."

The concept of turning sustainability improvements into something that impacts the core financials of a real estate asset was a common theme among real estate investors. According to Laura Craft at Heitman, the need to call out sustainability improvements specifically in disposition may be redundant. "Implementing sustainability improvements can increase cash flows of a property and thus generate increased valuations. Energy and water improvements tend to have the highest return on investment. Once the property has upgraded to more efficient energy and water systems, the property's cash flow will begin to reflect actual savings. The property's value will increase based on the improved NOI."

In a competitive market where good deals are difficult to find and even harder to execute, sustainability can be a crucial tool to find new opportunity in your acquisitions. The deal teams should take full advantage of sustainability experts at their companies – they can bring a new lens to identify hidden risks and unlock potential value in the acquisition process.

- ¹ For the purposes of this article, "sustainability", "ESG" and "corporate responsibility" will sometimes be used interchangeably, and will refer to efforts to reduce risk and generate value through improving social, environmental, and governance policies, programs, and performance.
- ² "Are We Nearly There Yet? Private Equity and the Responsible Investment Journey", PwC, 2016.
- ³ Avid Devine and Nils Kok, *Green Certification* and Building Performance: Implications for Tangibles and Intangibles, Journal of Portfolio Management, fall 2015 http://www.iijournals.com/toc/jpm/41/6
- 4 http://www.imt.org/real-estate-and-finance/lenders-and-appraisers

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By John D'Angelo, Managing director, RealFoundations

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FEW REAL ESTATE INVESTORS – either fund managers or plan sponsors – today doubt the importance of data as critical to their business. Yet, as an institutional asset class, real estate has long lagged other asset classes with respect to data transparency and standardization. And whether a cause or effect, the flow of information – from the lowest, source level to the portfolio and asset managers who act on that information to create value or mitigate risk – is problematic at best.

Causes & Characteristics of the Problem

Let's review several of the root causes of this problem:

• DISTANCE BETWEEN SOURCE AND USERS:

Quite commonly, the enterprise that captures and creates source data (e.g., property managers) is different from the enterprise that uses that data to create value and manage risk (e.g., investment managers). And the movement of that data – sometimes in summarized form, sometimes in very granular form – from one group to another is a fragile and error-prone. Worse, these problems tend to compound each other with each upward 'leg' in the journey of data from source to user.

• POOR SPECIFICATION OF DATA NEED:

While agents acting at a lower level in the data supply chain are universally expected to supply information upward, it is generally the case that the specification – of what information will be provided, according to what standards, and when – is poor or lacking altogether. Investment managers too often assume that since the lower-level provider "is in the real estate business they will know what I need and will get it to me..."

• ALTERNATING DEMAND FOR SUMMARY AND DETAIL:

Users of information at higher levels in the chain often assert that they only need summary information, since it's their job to 'see the big picture', not to redo the work of those below. This is fine when things are going as expected! But as soon as there is something in the summary that is unexpected or troubling, then that same user wants immediately to 'drill down into the detail' – which either isn't available, requires massive effort to compile, or is beset by errors.

• FALSE SOLUTION - 'GET EVERYTHING'

In those moments when an investment manager suddenly needs to 'drill down', there is often a knee-jerk demand to 'get everything' – since "Get everything!" is much easier to say then "Get me these specific things at this specific level of detail...' And, because if getting everything was possible, that would be great! However, for a host of reasons, 'get everything' has never been known to work at scale.

• FALSE SOLUTION - 'SHINY ANALYTICS':

Perhaps the most common response to the conundrum of real estate data is to try to 'solve' the problem by adding analytic tools (e.g., data warehouse, BI solutions, or even big data processing tools) at the 'top' of the investment manager's application stack. But of course, since all such tools rely on complete and trustworthy source data, these

shiny solutions are likewise doomed to consume a great deal of energy, and generate a lot of noise, but ultimately either under-deliver or outright fail.

Costs & Risks

While navigating these various problems, both GPs and LPs spend significant time and effort capturing – and building trust in – the information they need. The costs involved, and the risks associated with the effort, can be significant.

• EXPENSE OF DUPLICATED WORK:

Because throughout the enterprise, individuals must find (and re-find) and verify (and re-verify...) data before it is used. This duplicated work is, at best, redundant and inefficient. But when highly compensated individuals – asset managers, for example – report spending 25% or more of their time on such 'data wrangling', the economic consequences become very material.

• RISK OF PICKING UP THE WRONG DATA:

Because data is stored in many places, what seems correct may be an old copy that is inaccurate or out of date.

• RISK OF RELYING ON THE WRONG NUMBER:

Because a business measure has a common name, the user assumes he or she knows the underlying calculation, when, in fact, a different calculation may have been used.

• RISK OF INACCURATE REPORTING:

If any of a number of potential errors aren't caught, the wrong number could be published, causing reputational damage and potentially triggering specious decisions.

Effectively managing enterprise data is demanding. But the costs and risks associated with *not* rising to the challenge are likely far greater than the cost of addressing the challenge with a solid strategy.

Strategic Options: Application-Driven Strategy vs Data-Driven Strategy

So, how should a committed investment manager go about building a solid information foundation? The question has resisted easy answers throughout the several-decade-long rise of real estate as an institutional asset class. To keep it simple, there are two common strategies for getting the information they need.

One strategy can be called an "Application-Driven Strategy." This strategy is currently followed by a number of large managers, most of whom adopted the strategy years or decades ago and have not re-evaluated this strategy – even though it tends to lead to a state of

continuous frustration. A second strategy, and one we think makes more sense for most large investment managers, is a "Data-Driven Strategy". Here, the information itself, not the tool, becomes the primary focus. It represents a subtle shift in thinking – but promises potentially profound results.

Application-Driven Strategy

Let's start by examining the application-driven strategy. You are probably pursuing an application-driven strategy if you're asking yourself questions like these... What property management tools should we implement? Which revenue optimization system is best? Why do I have so many "systems" people on my staff? In truth, the application-driven strategy is taken not because the manager is passionate about investing in and supporting a given property management platform, but, rather, because the manager believes (or believed) that this is the "only" or "best" path to getting required asset-level data.

Following this strategy, the investment manager implements and hosts a property management platform that is vertically integrated with its 'upstream' investment management and accounting system, and requires their third-party property managers to use their platform to manage their properties.

This strategy can be efficient, but only when a number of stars align: (1) all investment properties are entirely managed by third party fee managers; (2) the manager's chosen application is appropriately implemented for the asset types they currently and will own; (3) the application is viable for properties in any targeted region; (4) the investment manager has and wishes to retain an IT organization that can properly support the application and its many users at the property level; (5) the investment manager either commits to maintaining a state-of-the-art platform or accepts that its property managers might be forced to use a sub-par system; and (6) the investment manager accepts that its property and investment systems are bound together – and therefore their total platform is only as strong as its weakest component.

However, such stars rarely either ever align or remain in alignment. This application-driven strategy, while seemingly elegant and simple, is almost invariably too rigid for the dynamic needs of an investment manager.

The resulting challenges are many. First, only rarely (if ever) can the manager dictate use of their property management platform to 100% of their managers for use on 100% of their properties. Often this is simply

because the manager has several investments in which the property manager is also an equity partner in the deal and the manager either cannot or will not dictate the property management platform. We also see economics problems: The investment manager bears the cost burden and complexity of maintaining a property management platform, and they also must figure out how to get data from the properties managed outside of its platform – and doing so with a high degree of fidelity, because going without required data for a subset of properties is not acceptable. Finally, we see real 'lock-in' flaws that flow from this strategy: It becomes difficult and expensive to upgrade any one component of an overall technology platform when the entire premise of the platform rests on having a 'single' system.

Data-Driven Strategy

You are probably pursuing a data-driven strategy if you are asking yourself questions like these: What data do I need to measure the performance of my investments? To run my business? Where does that data naturally originate? Who does the work that produces the data I need? How can I ensure that those who produce the data do so according to my definitions and quality standards? And finally, what tools do I need to retrieve, store, access, visualize and report on that data?

With the data-driven strategy, the investment manager can focus its technology investments more appropriately on the tools and human capabilities required to collect and govern data, and to manage portfolios and make better investment decisions. At the same time, the investment manager can rely on its property managers and operating partners to make investments in their systems and processes, which allow them to be great property managers. It simply leads to a much better alignment of resources and investments in tools and systems.

In the data-driven strategy, systems follow services; the investment manager focuses only on those systems that support its specific investment management business functions. In this strategy, property-level service providers run their own systems and are expected and guided to provision data. Going further, if the investment manager considers different sourcing strategies – for example, engaging third-party fund administrators – then those service providers would be expected to use their own systems and provide the required data back to the investment manager. This is yet another way in which a data-driven strategy can enable a nimbler consideration of operational improvement opportunities.

Managers who adopt this model can expect to simplify the footprint of their internally maintained operational systems, but they also must address data movement, which is typically accomplished through multiple methods, both formal and informal. Dealing with data movement – and the attendant responsibility of making sure collected data is complete, consistent and accurate – may seem daunting; but the burden is beginning to ease as specialty service providers become increasingly capable of meeting such demands from their clients.

In the last five years both services and technologies have emerged to meet the challenge of moving data from external parties to investment managers. RealFoundations' point of view and experience is that the movement of data from external parties to the investment manager will never be a strictly template or technology-based endeavor. Because there are typically a great many different sources of data - each of which use a variety of systems, follow their own procedures, use their own charts of accounts, and use their own data definitions there are multiple potential points of failure. So, while technology and templates can help with the mechanics of moving data from each source, people - with genuine expertise and an nderstanding of the underlying data – must also be part of the solution. It's people who determine what should be done with the errors that are found, who resolve actual errors by communicating with the property manager or operating partner, and who work with data suppliers to ensure that their data provisioning capabilities are continually improved.

Conclusion and Summary

Just as no developer would start vertical construction without first ensuring that a solid foundation is in place, so too would we expect any leading investment manager to consider a sound data foundation as mission-critical. Once such a foundation is in place and trusted, the manager has the opportunity to build on it – and to really harness the power and insight that today's technologies promise. Plus, the cost and effort to build a strong data foundation is likely an excellent investment in its own right – given the value of saved time, of making better-informed decisions, and of reducing enterprise risk that tends to be either passively accepted or unrecognized – and is rarely quantified.

Since the recovery after the Global Financial Crisis, as cap rates have steadily compressed, steady delivery of returns has been the norm. But this particular party will come to an end, and when it does the successful and differentiated managers will be those who have harnessed the power of their data: to understand risks and opportunities, to squeeze every nickel out of property operations, to quickly and transparently respond to investors' questions, and to adroitly model their portfolios to minimize risk and maximize returns. We know with whom we'd trust our money.

John D'Angelo is a managing director with the real estate management consulting firm RealFoundations. John has been in the real estate industry for over 25 years and has spent the last decade focused on serving investment managers in North America.



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INFORMATION

Using Data Analytics to Unlock Value

By Joe Vellanikaran

Director of Strategy & Market Development, Waypoint

IN OUR POST CREDIT CRISIS ECONOMY,

institutional real estate investors have enjoyed consistent rent growth, increasing valuations, and strong returns. However, signs indicate a change in this trend. Greater liquidity through a friendlier regulatory framework may help to maintain cap rates, but the probability of Fed tightening increases with every quarter. As we enter the late cycle for commercial real estate, investors are now looking to exercise greater scrutiny over operating expenses as a tool to increase NOI. But how do you empower overextended, lean asset and property management teams to proactively improve operating expenses? Occupancy, lease negotiations, rental rates, capital improvement projects, refinancings, and dispositions typically supersede operating expenses on an asset manager's priority list. In an effort to fine tune operating expense management and unlock new value, commercial real estate owners and operators have begun to turn to normative comparison by adopting a single system of record that enables information transparency throughout the organization.

The use of normative comparison to improve organizational performance is by no means a new concept. Professor Robert Cialdini famously established normative comparison as one of the six universal principles of influence. In simplest terms, normative comparison, or social proof, is the concept that "People will do things that they see other people are doing." People are more likely to recycle if they know that their neighbors are recycling as well. Employees are more likely to arrive late to work if they see their colleagues doing the same. In commercial real estate, investors have always used normative

comparison to some degree; at quarterly reviews, nobody wants to be the only person with a net operating income that is \$300,000 under budget. Every institutional investor has a trove of financial information across their portfolio that can motivate managers to improve performance. The problem is that the dispersion of information across multiple systems and individuals, not to mention the added complexity associated with multiple asset types, limits the ability to effect portfolio-wide normative comparison.

Let's say you manage the core fund for a multi-strategy real estate investor and want to compare property security expenses in Chicago across all funds and investment strategies. Depending on portfolio size, asset managers company-wide would spend days, perhaps weeks, of man-hours collecting detailed security expense data from property managers, operating partners, old emails, and pdf files. Given the limited resources of any asset manager, data collection is rarely the best use of time. Furthermore, these mandates must come from senior management due to the complexity and effort required for a seemingly simple task. Even if armed with the best intentions, a junior associate would be hard-pressed to aggregate the same information. And if she were successful, there would still be the risk of criticism for wasting resources if the effort failed to identify any meaningful issues. However, evidence of an issue should not be the impetus for the comparison of operating expenses across similar properties in the same market. Any asset manager should be able to easily compare his asset performance against properties held firm-wide. The challenge is the formidable task of collecting the data into a single source of truth.

Fortunately, recent advancements in real estate tech enable the housing of financial performance information in a single, accessible, company-wide system of record. This significant improvement to operational efficiency grants any user the power of instantaneous portfolio analysis, and removes the execution barrier for normative comparison. As Cialdini, Kallgren, and Reno wrote in A Focus Theory of Normative Conduct: A Theoretical Refinement and Reevaluation of the Role of Norms in Human Behavior:

"There is substantial evidence that shifting an individual's attention to a specific source of information or motivation will change the individual's responses in ways that are congruent with the features of the now more prominent source"

Competitive organizations foster competition through their managers. Competitive managers are now using new, easily accessible systems of record to assess, benchmark, and improve their relative performance against peers. Waypoint regularly works with investors to make portfolio performance data and analytics easily accessible, a powerful tool that motivates employees to improve operating expense performance. In one example, an asset manager single-handedly identified a \$200,000 annuity savings that increased property value by more than \$3 million. He unlocked this value by

uncovering meaningful differences in cleaning expenses managed by the same vendor across similar markets. Opportunistic acquisition teams have used Waypoint's platform to more accurately underwrite operating expenses by comparing their pro-formas to properties held in the core funds. And we have seen operations teams initiate annual operating expense benchmarking efforts that resulted in significant expense reductions portfoliowide, without a specific mandate to improve property performance. In each case, a single system of record that easily enabled information transparency and normative comparison facilitated the achievement.

The benefits of tech-enabled information transparency are not limited to financial performance; commercial real estate owners can also enjoy better planning, greater collaboration, improved communication, and proactive problem solving. From a budgeting standpoint, an asset manager is more likely to develop detailed budgets on time if he knows his colleagues can review those budgets online once complete. Collaboration across any company arises out of a business need. If asset managers working in different offices and funds can easily see the overlap of their portfolios across markets, they are more likely to collaborate and develop strong working relationships – a substantial win for any company. Similarly, we have encountered clients who, after realizing the benefits of information transparency in their own companies, have decided to provide the same visibility to property managers

and operating partners outside of their organizations. By providing these tools downstream to the day-to-day property managers, institutional investors have seen a shift from reactive to proactive property management.

Obviously, there is always resistance to the adoption of new technology, no matter the benefits. First off, managers often believe technology replaces people. But commercial real estate technology is enabling, not disrupting. Disruptive technologies, like UBER and Netflix, replaced entire companies, but nothing will ever replace the business acumen, industry knowledge, and personal networks needed to succeed in real estate. The problem in commercial real estate is that individuals are currently the custodians of information. How much time does your team spend tracking down emails, searching for old investment committee memos, and wrangling property managers for single data points? These smart, hard-working individuals were hired to make strong business decisions, not corral information. The more data readily available at their fingertips, the better decisions they will make. There are tools now that enable your teams to focus strictly on what matters - managing assets and improving property performance. The key is finding a welldesigned solution that easily integrates with your current tech and requires minimal effort and training to implement. So why not start sooner rather than later?

GETTING PORTFOLIO DATA THE WAY YOU WANT IT,

WHEN YOU WANT IT

Portfolio asset management software that collects, aggregates and delivers property and asset data to institutional asset managers when and how they need it is helping them spend less time wrangling data and more creating value.

By Alan James,

SVP Commercial and Investments, RealPage

hether you're acquiring, selling or managing assets, making the right decisions as an institutional manager comes down to one thing: timely and comprehensive data from the assets that comprise your portfolio(s).

But getting your hands on this data in the ideal form to work with can be a prodigious challenge. The good news is that today, this challenge is being met through portfolio asset management (PAM) software that collects, aggregates and delivers the data to the general partners and limited partners who need it, in the form they need it.

As with most changes to systemic processes, there's time and effort involved in changing the way your organization assembles data. But the payoff, for those who have done it, is increasingly clear.

THE DATA SWAMP

The more diverse your portfolio and the more property management companies you're dealing with, the more scattered and inconsistent the data bubbling up from the field. Many asset managers are dealing with a variety of property types: multifamily, senior housing, commercial, hospitality, etc. They may be spread all over the world, and managed by numerous property management companies each with their own software and reporting systems.

Some institutional limited partners are large enough that even billions of dollars in real estate holdings make up only a modest part of their overall investment portfolios. Often this leaves four or five managers responsible



LETTING SOFTWARE DO THE JOB

Today, you can put a portfolio asset management solution in place that will do the arduous work of data extraction and delivery for you. It takes preparation, planning and coordination, but once implemented there's a lot less time spent wrestling with data and a lot more for actually using it.

These solutions are software-agnostic: they can pull data from any popular property management software system – then assemble it in the way general partners and limited partners want it in order to perform their jobs, with the Key Performance Indicators, Key Success Indicators and other business measures that are specific to their investments and strategies. This frees asset managers from having to deal with diverse data coming from all directions, often on different schedules, and trying to make sense of it.

Timing is a factor as well as data quality. Data is made available within four or five days after the end of the quarter, rather than two or three months. That's a big advantage in markets that evolve quickly, allowing managers to be agile and responsive to market changes.

LAYING THE GROUNDWORK

Core business process changes take effort, and the transformation of data collection and delivery is no exception.

"PAM software is by no means plug-and-play," says John D'Angelo. "You get out of it what you put into it, and that involves carefully defining the data you want from the field: the type of business measures, the level of granularity, etc."

"There isn't a one-size-fits-all template," he continues. "A PAM solution can help facilitate the movement of data from the properties to asset managers, but you have to articulate exactly what data you want and how you want it in order for your property managers and joint venture partners to know what you expect."

Organizations implementing PAM software have a choice to either use internal staff or call in an outside resource (such as RealFoundations) to manage the project. Either way, asset managers must get involved to define the data they want to see.

D'Angelo says those who implement PAM solutions can expect a bell curve when it comes to the quality and consistency of data delivered. Most of it will be in line with what's been asked for. Some will be superb. But there will be those property managers who will struggle to deliver what is requested, and these situations have to be addressed. Still, he says, even though not all the data will be perfect, by being deliberate in understanding and articulating your data needs you're way ahead of where you were before.

One challenge D'Angelo mentions in particular is getting everyone who depends on data at the general partner firm to agree on what business measures will be driven by the data: not just Key Performance Indicators and Key Success Indicators, but all of them. And the more specific, the better.

Another is getting asset managers to loosen their grips on working their own data, a task they're now accustomed to. "It should be made clear that there's a huge benefit to the organization as a whole in freeing the asset managers and their analysts up to do analysis rather than wrestling with the data," says D'Angelo. "Data should be seen as an enterprise asset, not something manipulated and used in separate silos and perhaps even varying from one manager to another. Managers must learn to trust the shared data contained in the PAM software even if they didn't personally have a hand in getting it there."

D'Angelo makes a key point here: To implement PAM successfully, you must put a layer of governance and standards over the data being delivered to asset managers that mitigates the rogue efforts of individual managers. PAM is part of a standardized, consistent process of moving data from the individual property level all the way up to the limited partner level, and delivering it to each level in between in the form it's needed.

It is becoming increasingly clear that while there's cost and commitment involved in implementing a PAM solution, there's a greater cost to not doing it. Quite simply, you don't want to be in the data management business. Yes, you'll invest time and effort in corralling your analysts to specify the data they need, and you'll take on the expenses of leasing the software and perhaps calling in a consulting firm to help with implementation. But in return, you'll free up your analysts to create value, putting the data they need at their fingertips instead of having them spend their time assembling it themselves.

Over the last 25 years, Alan James has worked with top fund and institutional managers in providing technology solutions to increase shareholder value. Previously, Alan served in various capacities at Yardi, Oracle Corporation, PeopleSoft and J.D. Edwards on solutions for real estate owners, managers and REITS. Alan holds a BS in Accounting and Finance Law from Portland State University.

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Succession planning is a hot topic – and for good reason. It is a headline throughout corporate America, but particularly important in the real estate world, because aging Baby Boomers are still running so many of the companies in our business. Visible, institutional firms like the fund managers and the REITs are dealing with it head-on, both because they have a higher bar from a fiduciary standpoint and because they have the size and scale. But what about the rest of us? What are the issues on succession? Here are some thoughts and the challenges of what are too-often colliding themes and trends.

Matt Slepin, Founder, Terra Search Partners Mary McCarthy,
Managing Director, Terra Search Partners

Succession for the Rest of Us



Let's paint the picture. There are still a ton of real estate companies where you walk in the Board Room and the senior executive team is largely a room of older white guys, most of whom have worked together for years. This is a caricature, but still too often true. Exceptions are often a matter of degree.

There are multiple issues here and hard work to the path forward. Let's explore.

First issue. Long tenure and stability on a team is very much a blessing, but also a curse. The blessings are obvious. Stability. Longevity. Knowledge and experience. Success at working together. All good. But the curse is the potential of rigidity of organization and perspective. Some level of ongoing change at the senior levels can bring different perspectives on the market, customers, competition, best practices and etc. No one is perfect and long standing teams have usually learned to cope with the natural strengths, weaknesses and sometimes dysfunctional or overly dominant team members. I often use the metaphor of cross country skiing where you ski only in those well worn tracks, ie, ruts, versus the flexibility of free style. Occasional change trains an organization to flex and helps create resiliency. Everything is a balance. Constant change is a clear weakness. But too much stability is a weakness, too.

Second issue. Diversity. This is not a political correctness issue. It is much deeper than what-you-should do. Google the statistics on the benefits of diversity in leadership and in the boardroom. They are compelling. You know that this Board Room, in 5, 10, 15 years will look different. It will have diversity of age, gender, orientation, and the faces will be more rainbow colored. That is absolutely the face of our upcoming generation of real estate leaders and it is clearly the face of your customers, capital sources, business partners, and collaborators. Companies that have not yet much dealt with that will experience a wholesale versus a gradual shift. Again, think resilience.

Third issue, age and age politics. This used to be straightforward back when the societal norm was retirement in the early to mid 60's. But we baby boomers have a changed attitude towards work, where retirement, at least for people in successful and satisfying positions, is not the prize, but the booby prize. So, members of the senior team want to keep working into their mid and late sixties or further. This is cool. Truly. But it comes at the risk of that overly tenured team and it also comes at the expense of everyone down the food chain in the different functional areas getting blocked up. The next generation(s) are looking to make their mark and their fortunes and will not stick around without meaningful growth opportunities. People moving around is a natural part of business. But an organization where too many people are blocked out is a true risk.

There are other related, equally sticky wickets. Let's group them around capital, both intellectual capital and the dough.

First, intellectual capital. Companies in our industry are often founded and built around a charismatic and often brilliant individual real estate investor. Often, we know them from their first names – Sam and Barry, of course, come to mind. Capital is drawn to these brilliant, iconic investors. But if it is to be a business for the long run, succession planning demands that their brilliance must be distributed within an organization and then built into its DNA. If not, the company will not last much beyond the active lifespan of that leader. This is a challenging and long term transition and applies equally to the small and midsized real estate investment and development companies as it does to the Sam and Barry iconic firms.

Balance sheet is the last key topic. There are two, related issues. First, how does succession enable a liquidity event for the outgoing leaders? Second, in doing this, and assuming that the business has decent cash flow for ongoing operations, how does the transition create or maintain enough of a balance sheet for the next generation to have the capital for coinvestment, pursuit cost, and/ or guarantee funds? Balance sheet transition is probably the do-or-die issue that will define the rest of these issues and whether the company can find a succession capital source to position the company into its next generation or will need to pursue a merger or sale of assets.

Eventually all companies have to come to grips with these matters. These are all interrelated topics. Planning for the future requires all to move forward together or the long term prospects of an ongoing concern are weakened. Punting suggests a company for which a sale, merger or liquidation is a very likely outcome which, by the way, is nothing to be ashamed of. Growing up in the business, many have deemed the definition of success more as a happy capital event for the leaders than passing the baton for an ongoing concern.

But if a company is looking to build an institutional platform, which means ongoing capital and ongoing business, then it must deal with all of these issues – call them succession issues – discussed herein. One size does not fit all and, in most companies, this can be a messy, awkward process and one that requires strong leadership and vision at the top. It is not easy. Continual planning and change creates resiliency and a company that has a good chance to continue into its next generation – at which point, of course, these matters get to be addressed anew.

Matt founded Terra Search Partners in 2006 to provide a highly consultative and both a client and candidate centric approach to real estate search. Prior to forming Terra Search, Matt was a Partner with several executive search firms, including Heidrick & Struggles and Ferguson Partners.

Mary McCarthy is Managing Director at Terra Search partners. She brings 30 years of real estate capital markets experience and a deep understanding of real estate private equity to executive search.

ARE YOU MISSING OUT ON

PRICING DI\$COUNTS

FOR INVESTING IN YOUR MULTIFAMILY ASSETS?

By Tony Liou,President, Partner Energy

nstitutional investors are increasingly being asked by those in their capital stack to actively support sustainability through their CRE investments. Fiduciary advisors that acquire high quality, but aging, core and core-plus assets face tough decisions when attempting to underwrite capital to implement sustainability measures, due to economic pressure from cap rate compression inherent with acquiring institutional-quality assets in a very competitive environment.

However, new multifamily loan programs launched in 2016 are beginning to make sustainability improvements a financial no brainer. Many institutional investors are still unaware of these programs, but a

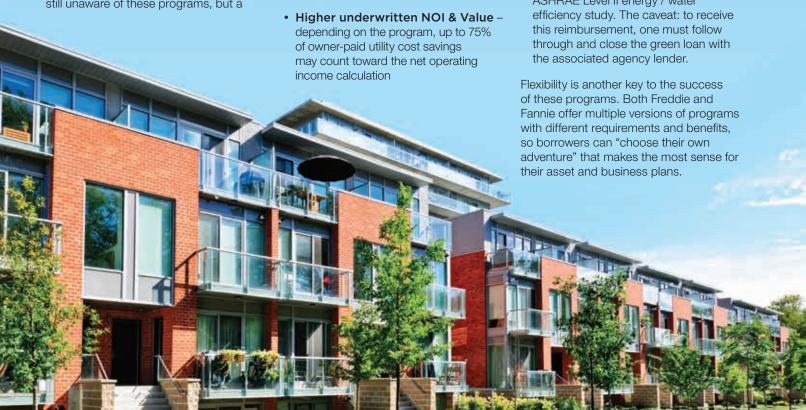
small and growing number are beginning to take advantage of Green Loans offered by Fannie Mae, Freddie Mac, and HUD. These programs provide substantial pricing discounts – up to 39 basis points – in return for implementing projects that improve asset value and reduce energy and water costs or for projects that are certified green.

WHAT ARE THE BENEFITS?

These programs offer several financial incentives that include:

 Lower interest rates – discounts of 10-39 basis points are available in return for meeting sustainability and/or energy efficiency targets.

- Additional loan proceeds the borrower can utilize these for energy or water efficiency improvements.
- No spending caps green lending programs are not subject to the annual FHFA lending cap, allowing agency seller/servicers an avenue to do substantially more deals than before. Q4 2016, normally quiet for agency lenders whose annual budget has been spent, saw a tremendous volume of deals go through.
- Audits are paid for (Freddie and Fannie) Freddie Mac will reimburse the borrower \$3,500 for their required energy study and Fannie Mae will reimburse in full for their required ASHRAE Level II energy / water efficiency study. The caveat: to receive this reimbursement, one must follow through and close the green loan with the associated agency lender.



WHAT ARE THE PROGRAMS **AND REQUIREMENTS?**

Fannie Mae's Green Programs

Fannie Mae's products include:

- Green Rewards
- Green Building Certification Pricing Break

The Green Rewards product requires borrowers to perform an ASHRAE Level II Energy Audit, which Fannie calls the High Performance Building Module. Ideal for refinancing and acquisition loans, this report identifies various energy and water efficiency measures that the borrower can choose from in order to achieve a 20% savings in either water or energy annually. Borrowers who commit to making the recommended improvements to achieve the 20% cost savings will be able to underwrite up to 75% of all owner-paid savings.

The program gives borrowers 12 months to complete the improvements and require energy and water benchmarking to be recorded in the EPA Portfolio Manager® before closing as well as annually after the project is completed.

Under the Green Building Certification Pricing Break program, a Borrower chooses to Green Certify the property through industry standard green building certifications (prior to the close of the loan). These include EarthCraft, ENERGY STAR®, Enterprise Green Communities, Green Globes, Greenpoint Rated, Leadership in Energy and Environmental Design (LEED) and National Green Building Standard (NGBS). The program can include properties that already had a green certification, not just those that pursue it for the loan program.

Freddie Mac's Green Advantage

Freddie Mac's programs include three paths within the Multifamily Green Advantage offering:

- Green Up
- Green Up Plus
- Green Certified

The Green Up option requires borrowers to order a Green Assessment, a straightforward property analysis that identifies energy and water conservation measures. Borrowers who commit to making improvements based on the findings of this assessment are eligible to increase their loan amount based on underwriting 50% of the projected owner-paid cost savings.

With the Green Up Plus option, borrowers are required to order a Green Assessment Plus, a more detailed property analysis based on an ASHRAE Level II Energy Audit. If they commit to implementing measures identified in the report, this option will allow borrowers to increase their loan amount based on underwriting 75% of the projected owner-paid cost savings.

Both options require the implementation of measures that reduce owner-paid energy or water consumption by at least 15% and give borrowers up to two years to complete the improvements with work commencing within 180 days of loan origination. Both options also include benchmarking requirements, which require property energy and water usage be recorded in EPA Portfolio Manager® before closing as well as annually until two years after the project is completed.

As an alternative to Green Up and Green Up Plus, Freddie Mac also offers a Green Certification route for buildings that carry one of the above discussed industrystandard green building certifications. Freddie Mac requires that at least 20% of the units be considered affordable in order to take advantage of the Green Certification pricing discount.

HUD's MIP Reduction

HUD offers a Mortgage Insurance Premium (MIP) Reduction for owners that (a) have, or will pursue and achieve, an Energy Star score of 75 or better on a 1-100 scale using Energy Star's Portfolio Manager and (b) have, or will obtain a pre-approved Green Certification. This is offered for both new and existing buildings – for new buildings the score is based on the plans and drawings. For existing buildings that score lower than 75, the owner can conduct a Capital Needs Assessment and ASHRAE Level II Energy Audit then implement improvements to raise their score to 75 and qualify for the MIP reduction.

KNOW BEFORE YOU GO

Consultant Credentials

It is important to work with the right energy/sustainability consultant. Freddie Mac has a select list of national vendors for this work. Furthermore, depending on the program and sustainability strategy selected by the borrower (reduce consumption versus certify) different consultant credentials are required to assess and/or implement the objectives.

Look for a firm that has staff with certifications such as:

- Professional Engineers (PE)
- Certified Commissioning Agents
- Registered Architects (AIA)
- LEED AP BD+C GBCI
- Certified Energy Managers (CEM)
- HERS I & II Raters
- LEED for Homes Green Rater
- Green Point Rater
- BPI Building Analyst/Multifamily Analyst
- BPI Proctor

Timeframe and Planning Ahead

The energy/sustainability part of the due diligence can take longer than the typical timeframe. The Environmental Site Assessment and Property Condition Assessment timeframes can often occur independently, but completion of Energy Benchmarking can take longer due to the additional data collection requirements, and must be completed just prior to deal closing or a refinance rate lock.

For new construction, developers should consider incorporating sustainability into the design from the start in order to achieve green certification. Pursuing certification as an afterthought can be more challenging, as may be demonstrating improvements in energy or water efficiency for a brand new, already-efficient building.

MORE GREEN AHEAD IN 2017

These programs are considered game changers in the industry by freeing up cap space for market rate deals, providing a trickle-down effect to renters who will ultimately save on utility costs, and helping Fannie Mae, Freddie Mac, and HUD accomplish their missions. As such, all three agencies have indicated they will continue to support green financing in the year ahead.

Rising interest rates may drive even more demand for these loans as multifamily investors and developers seek ways to reduce financing costs. And beyond the benefits of these specific programs, efficiently operated properties yield financial benefits through lower operating and utility costs, improved tenant satisfaction, and increased property values. All this brings new meaning to the phrase "green is good."



property types face leasing risk, supply risk, and credit risk. However, retail is arguably the most diverse property type, encompassing projects that present wide variations in risk. Also, retail property serves an industry with significant churn and a relatively high historical bankruptcy rate. With e-commerce and digital marketing driving yet another evolution in the industry, many have rushed to falsely conclude that risk has increased for retail real estate. It hasn't increased, but it has changed.

TECHNOLOGY MAKES A HUGE IMPACT

The retail industry is always evolving but this time it's more momentous. E-commerce and social media have become extremely influential, driving a significant shift in retail business models. It's now clear that a retailer needs both an online and physical presence and each retailer has to figure out the balance that works for them. Increased competitive forces will likely accelerate the failure of underperforming centers and obsolescence of certain boxes as space needs continue to evolve.

It would be hard to overstate the impact of technology on the retail industry. Retailers must spend heavily on IT to compete in an environment that is still defining itself. The competitive retailer uses an omni-channel strategy, offering consumers the ability to purchase whatever they want, wherever they are, quickly, and with an inexpensive, easy-to-return option. But developing the information and distribution systems required to be competitive has proven difficult. Some retailers have been better at it than others. And substantial IT spending, more often than not, requires cost cutting in other areas. Management and real estate expenses in particular have been under the axe.

A digital platform provides another viable path to sales and, in some cases, has diminished the utilization of physical stores, forcing retailers to be more critical about physical store locations. This trend should alleviate some of the risk of overbuilding by eliminating the more marginal construction. We have seen an evolution in targeted store size and configuration before, but this time there is a new twist. Some retailers are shifting inventory from the store floor to warehouses while others are adding order fulfillment to the back room. Overall, there is likely to be slower growth in the physical space needs of most retailers; especially national retailers who have reached full saturation.

The above trends are shifting risks in retail property. In general, constraint of new store expansions will reduce supply risk and but at the same time increase leasing risk. There will be less new space to fill, but also fewer

prospective tenants to backfill vacancies. Risk has increased for large box space as consolidation, downsized formats, and competitively priced e-commerce create leasing challenges. Conversely, the value of outparcels and pads has increased at the better locations as investors see opportunities to add value. Demand for space in the better centers is likely to rise at the expense of less competitive centers, thereby lowering risk for some but increasing it for others. Anticipation of Sears' demise is surely making some owners anxious or excited, depending on their locations.

Credit risk has always been relatively high in retail real estate. The retail industry has historically been highly fragmented and labor intensive with high operating leverage generating thin margins. Smaller, private operators comprise a significant share of retailers, many with limited experience and resources. The added competitive component of digital capability may be elevating credit risk for retail property as not all retailers will be able to execute the strategy. Until the digital shake out is complete, credit risk in general is rising. Also, since most retail tenant improvements are highly customized, the cost of unanticipated turnover due to tenant default can be significant.

While it's true that even the better properties cannot completely insulate against the increased credit risk, it should be easier for these centers to upgrade the credit quality of their tenancy as retailers place greater value on these locations, thereby diminishing their exposure.

REPORTS OF THE BRICKS' DEMISE HAVE BEEN GREATLY EXAGGERATED

Online offerings continue to expand and provide a convenient and cost effective way to purchase just about anything you could want. But who doesn't stop at a retail facility at least a couple of times a week? Consumers are still spending the majority of their dollars in traditional stores and retailers will continue to expand their physical presence. Several surveys of online shoppers support the view that physical stores remain an important channel for retail distribution and are integral to the buying process.

According to the PwC publication, They Say They Want A Revolution, based on a survey of nearly 23,000 online shoppers, physical store space is still considered critically important to purchase goods. Most people shop both online and in-store with less than 10% choosing online exclusively or almost all of the time for any category with the exception of books, movies, music, video games. Additionally, 40%-52% of purchasers never buy online in the furniture, grocery, home improvement and household appliances categories.



information, but tend to buy whichever option provides the lowest price. And for first time purchases, more than 70% think it is important to try the product in person. Also, a great majority of those that shop online are not frequent online buyers. Only 15% of U.S. adults shop online weekly, while 65% shop less frequently.

THE GOLDEN RULES OF REAL ESTATE INVESTING HAVEN'T REALLY CHANGED

As long as you stick to the long standing rules of good real estate investment, risk will remain in check. The number one rule of real estate is location, location. location. For years, the issue of being overstored has been discussed along with a forecast of the eventual decline of centers considered secondary or tertiary for their markets. Technology has accelerated that process by making marginal locations uneconomic to many retailers. But good locations can still be found in almost any market. The better locations have proximity to amenities valued *today*, which includes higher education institutions and medical facilities. Demographic trends typically redefine the best locations.

Speaking of demographics, another unchanged rule is to pick assets in trade areas that have strong demographic and economic profiles. These are places where people want to live and where there is a growing (or stable) employment base to support them. Moving to the suburbs has been replaced by returning to more urban areas that offer opportunities to work, play, and live. Dense suburban or urban locations face less supply and leasing risk than fringe locations that are typically following an unproven path of growth.

And lastly, providing the right tenant mix is critical to control leasing risk and credit risk. There has been significant change in what is deemed the "right" tenant for a given property type. The lines between center definitions have blurred as anchors get redefined, mall shops relocate out of the mall, and fast fashion, fast casual dining, warehouse clubs and discount stores gain share. Strong national tenants bring a lot to a center, however, too often major national tenants have merged, leaving landlords with a very different risk profile than was or strengthen the draw.

Today's new concepts include meeting places such as open space or a pub, restaurant, or coffee shop that brings in a social component so valued by today's consumers. Space may be allocated to services linked to online shopping such as pickups, returns, or just Wi-Fi. Interaction of bricks and clicks is becoming more applicable with almost all retailers and consumers. Consumers want to allocate more spending to experiences and shopping centers should provide them.

TODAY'S BEST BETS FOR SUPERIOR RETURN POTENTIAL

With the increased risk in secondary centers and a relatively poor outlook for their existing configuration, there is an opportunity to renovate, rehabilitate, or reposition older infill centers. Perhaps the needs of the trade area are not well matched to the existing format and the center needs to be reconfigured to a better use. Retailers want to be in attractive markets, so providing a new, updated center in the right location offers significant upside potential. Also, mixed-use projects are gaining favor as the integrated work-live-play environment has great appeal today. An underutilized secondary center may gain appreciable value through redevelopment with office, multifamily, medical or educational components. Great locations are being created in strong trade areas through development of mixed use projects.

Assets serving more non-discretionary needs, such as grocery-anchored centers, have less leasing risk and offer stable income. We believe these assets outside of major markets offer strong relative value. Redevelopment or repositioning of existing centers in built out locations also has the potential for attractive investment returns. Convenient and need-based tenancy should draw persistent foot traffic. Including either the top two leading grocers, or a seasoned specialty food store, or leading drug store as an anchor tenant are examples of this strategy. These types of stores also provide some insulation against online competition, and therefore some protection against credit risk.



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