

Commercial Real Estate ALERT

Analysis of the Latest Emerging Risks and Trends



Researched and Compiled By
The Swanepoel T3 Group



Commissioned By
National Association of REALTORS®

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National Association of REALTORS®

The National Association of Realtors®, “The Voice for Real Estate,” is America’s largest trade association, representing 1.2 million members involved in all aspects of the residential and commercial real estate industries. Commercial resources: www.nar.realtor/commercial

Foreword from Strategic Thinking Advisory Committee

Commercial real estate is embedded in nearly every segment of the economy; a short, but no doubt incomplete, list includes office-oriented businesses, retailing, distribution, leisure and public infrastructure. Consequently, it is a complex and dynamic sector influenced by trends in the domestic and international economies as well as developments in capital markets. With a global impact measured in the trillions of dollars, commercial real estate drives vast segments of the economy at the local, national and international level.

Keeping up with the emerging risks and trends in the commercial real estate area can be a significant undertaking given the geographic and economic scope of the sector. Much information is available to practitioners who need to follow the industry, often in the form of detailed reports that focus on current market conditions. While this type of market intelligence is valuable, it is also worthwhile to have a high-level view of the industry allowing organizations to gain strategic insights by focusing on a few important trends.

The National Association of REALTORS® Strategic Thinking Advisory Committee, working with Stefan Swanepoel, commissioned this report that discusses

the top emerging risks and trends influencing the commercial real estate industry. Unlike other reports, this report includes the perspective of commercial real estate practitioners as well as many other sources of research and analysis about the sector. As part of the development of the report, one-on-one interviews were conducted with practitioners to determine the most important concerns and emerging trends.

This report covers a range of risks and trends as identified by leaders in commercial real estate. We hope that you view this report not just as a comprehensive discussion of important trends, but also as a tool for preparing for the future. Clearly, not all trends discussed will be of the same importance or urgency to each practitioner or organization. Large firms will be exposed to each of the trends in different ways than smaller firms, for example. Similarly, commercial practitioners in large urban centers will no doubt view the implications of these trends for their business differently than practitioners in smaller market areas. In any case, the information in this report should provide a starting point for further assessment of the emerging risks and trends that could influence the market environment and the commercial real estate industry during the next few years.



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Swanepoel T3 Group

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Preface by the Author

There is no easy way to encapsulate into one document an industry as diverse as the commercial real estate industry, and then to do so whilst a new president is rapidly shifting the regulatory and business landscape.

We tried. Here is what we did. We interviewed more than 20 senior industry executives that have their finger on the industry's pulse, work for a cross section of some of the most respected commercial companies in all of North America, and cover the key sectors of commercial real estate. There were numerous open-ended questions and their responses were comprehensive and transparent, and above all they freely shared their insights. We also researched every commercial report and study published in the past three years that we could obtain and dissected them from top to bottom.

Having spent many years exploring and evaluating the trends affecting the real estate industry, and having authored over 35 books and reports ourselves on the industry, we encountered many issues that we have seen before. But the election of Donald Trump most certainly added an additional level of uncertainty into the equation.

Don't get me wrong. Leaders and executives are not negative at all. As a matter of fact, they are for the most part more positive post the election than they were before. As one CEO said, "commercial real estate has a unique way of always bouncing back." As a collective, their answers were filtered, reviewed, categorized, and consolidated in nine chapters. Similar to our research of the US, and later the Canadian residential real estate industries, this

research identifies many different elements—some that would be classified as risks and many as opportunities. Like many other industries, commercial real estate cannot escape the broad trends of demographic change—in customer profile as well as industry occupants— and technology advances in consumer usage and needs as well as industry data flow and access. And last but not least, the impact of capital and global access.

Commercial real estate is a large industry and the players at the top of the scale are large and very successful, warranting a great deal of respect. We trust that this Report will achieve its goal by alerting and informing the industry's participants, and those interested in its markets, to the complexities, opportunities, and the risks buried under the surface.

It is incumbent upon each of us to ensure that we are leaving a healthy and thriving industry to the next generation, an industry that stands behind its commitment to its customers by addressing and dealing with the risks and opportunities that shape its relevancy. To that end, I urge you to read this report with the intent of not only becoming informed, but with a commitment and obligation to make a difference. Although we do not claim to predict the future, we do believe that more knowledge makes you more prepared.



STEFAN SWANEPOEL
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New York Times Best-Selling Author
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The Study

The Strategic Thinking Advisory Committee (list of Committee members appended to this Report) of the National Association of REALTORS® (NAR) was tasked with the responsibility to produce a report detailing the risks and opportunities in the commercial real estate industry. NAR retained the services of one of the leading research and information companies in the real estate industry, T3 Sixty, Inc. Their findings are published in this study titled: Commercial Real Estate ALERT: Analysis of the Latest Emerging Risks and Trends.

The goal was to provide executives and professionals a comprehensive report identifying the most significant risks and opportunities facing the commercial real estate industry. The report excludes the impact that may be caused by catastrophic type events, major natural disasters or terrorist attacks.

Interviews were held with senior executives from all five the largest commercial real estate companies – CBRE, JLL, Newmark Grubb Knight Frank, Cushman & Wakefield and Colliers International – as well as

numerous medium-size and regional companies. Each was asked the same open-ended questions and Stefan Swanepoel conducted all interviews during the period November 2016 and February 2017.

This study was made significantly more complicated due to the fact that the presidential elections fell during this window and that the unexpected win by president Donald Trump and the subsequent realization that his leadership style would be unpredictable and impactful, made many issues difficult to address. Most of that uncertainty was folded in under chapter 8. Information obtained from the interviews was supported or verified against extensive additional information and studies that were sourced from not only the National Association of REALTORS®, but also the Urban Land Institute, American Bankers Association, International Facility Management Association, CCIM Institute, NAIOP Research Foundation, the Federal Reserve, The Appraisal Journal, PwC, Wells Fargo and various other organizations.

Abbreviations

As the industry is saturated with abbreviations we decided to list those used in this report for easy reference.

ADC	Acquisition, development and construction	HVCRE	High-Volatility Commercial Real Estate
ADS	Annual Debt Service	IASB	International Accounting Standards Board
AFIRE	Association of Foreign Investors in Real Estate	IBREA	International Blockchain Real Estate Association
AV	Autonomous Vehicles	IMN	Information Management Network
BMS	Building Management Systems	IoT	Internet of Things
CCIM	Certified Commercial Investment Member	IREM	Institute of Real Estate Management
CCCR	Continuing Care Retirement Communities	JOBS	Jumpstart Our Business Startups Act
CFAT	Cash Flow After Tax	LEED	Leadership in Energy and Environmental Design
CFPB	Consumer Financial Protection Bureau	NAHB	National Association of Home Builders
CMBS	Commercial Mortgage Backed Securities	NAIOP	National Association of Industrial and Office Prop.
CPM	Certified Property Manager	NAR	National Association of REALTORS®
CRB	Certified Real Estate Brokerage Manager	NOI	Net Operating Income
CRE	Counselors of Real Estate	NREI	National Real Estate Investor
CREW	Commercial Real Estate Women Network	PREA	Pension Real Estate Association
ERP	Enterprise Resource Planning	REIA	Real Estate Investors Association
EMS	Energy Management Systems	REIT	Real Estate Investment Trusts
FASB	Financial Accounting Standards Board	QE	Quantitative Easing
FDIC	Federal Deposit Insurance Corporation	RLI	REALTORS® Land Institute
FHA	Federal Housing Administration	RPI	Responsible Property Investment
FHFA	Federal Housing Finance Agency	SaaS	Software as a Service
FINRA	Financial Industry Regulatory Authority	SEC	Securities and Exchange Commission
FIRPTA	Foreign Investment in Real Property Tax Act	SIOR	Society of Industrial and Office Realtors
GAO	Government Accountability Office	SPV	Special-Purpose Vehicle
GIS	Geographic Information System	TEA	Targeted Employment Area
HNWI	High Net Worth Individuals	ULI	Urban Land Institute
HUD	Housing and Urban Development	WGBC	World Green Building Council

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CAPITAL MARKETS

Global Access and Managing the
Flow Opens New Opportunities

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ABSTRACT

The flow of cross-border capital continues to be a strong factor in the growth of commercial real estate, which has enjoyed five consecutive years of double-digit returns. But, while there are factors supporting the continued strong investment of foreign capital, there are also concerns of global financial volatility, weak foreign economies, low alternative investment yields and a new government with aggressive plans that will have a major impact on the economy through financial regulation, infrastructure spending and foreign trade. This chapter examines how these issues will impact key classes of foreign and domestic investors going forward and the effect that they will have on commercial real estate.

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THE ECONOMIC IMPACT

Commercial real estate enters 2017 with concerns about global volatility and instability and the impact they may have on the industry. The issues of global currency weakening in the face of a stronger US dollar, low energy prices, conflicting monetary policies, an uncertain economy in China and a European Union dealing with Brexit are just a few of the unknowns facing the industry. On the domestic scene, there is uncertainty as to the direction the new political winds will blow over the next four years, especially in relation to evolving regulation, immigration, infrastructure, energy and a tax code facing a potential overhaul.

“The cost of commercial real estate is high and moving higher. Commercial real estate needs money. No money means no business.”

All of these issues cast a shadow of uncertainty over the economy. One of the concerns at the forefront for the industry is the robust flow of cross-border capital that has aided the industry in enjoying more than five consecutive years of double-digit returns. There is concern about whether or not it can be sustained long term in the midst of growing global issues, record high prices and investors pausing to see what direction the US will take.

LOOKING AHEAD

Globally there has been a major stockpiling of capital (dry powder) for investment in commercial real estate over the past several years, yet at the same time the volume of foreign capital being invested in US commercial properties continues at record highs. Global financial volatility, weak foreign economies and low alternative investment yields have reinforced the advantages of direct investment in US commercial real estate, but there are concerns.

Upcoming elections in several European countries are contributing to growing uncertainty and the risk that geopolitical turmoil will slow the flow of capital in 2017. Financial markets are being challenged by a number of factors like China's slowing economy, weakness in emerging markets, currency devaluation, soft energy prices and the strengthening of the US dollar. Issues like these are making commercial real estate more expensive for foreign investors.

“The commercial real estate business is a bottom line business. Period.”

Economists worry that if there is a big enough financial shock, and global wealth decreases, there will be an ensuing reduction in the flow of capital into the US. This is compounded by the approximately \$1.1 trillion in dollar-denominated bond debt owed by emerging-market economies that will be challenged by repayment with weakened currencies. Apprehension also exists in a number of major global economies, in which the central banks have maintained an exceptionally loose monetary policy in an effort to drive personal and business investment. That same global economic and political uncertainty, however, continues to drive capital to the US. Even with slow economic growth in China and much of Europe depressing currencies and incomes there is still significant capital looking for US assets.

According to the Association of Foreign Investors in Real Estate (AFIRE), in spite of these concerns, a substantial percentage of investors expect to increase their investment in the US in 2017. The International Monetary Fund (IMF) predicts, “Stronger global growth is likely to provide more real estate inflows into the US market as the US remains one of the most attractive commercial real estate markets.” AFIRE reported that despite concerns about capital flow controls in China, inbound real estate investment in the last two months of the year was strong, with \$846 million recorded in November 2016 and \$1.8 billion in December.

Domestically the economy is continuing its slow expansion and 2017 is expected by most analysts to achieve similar results as 2016. But that prediction lays in the shadow of a new president and Congress whose real impact on the economy may not be realized until we move into 2018. And while new policies at the federal level will not immediately impact the growth of the industry, their effect on the economy will eventually be felt in the industry. The president's plans are covered in more detail in chapter 8—*Regulations: A New Kind of President Brings Uncertainty and Total Different Direction*.

Positive Indicators

While the Federal Reserve has started to raise interest rates, most other central banks have not started the process of normalizing rates. Add to this recent tax changes to the Foreign Investment in Real Property Tax Act (FIRPTA), the EB-5 visa program for foreign investors, the emergence of foreign qualified pension plans, and the continued search for a safe haven for foreign capital and solid fundamentals make the near-term prospects for continued growth in the flow of cross-border capital positive (more detail in the Regulation section).

Cushman & Wakefield estimated in its US Capital Markets Report for Q2 2016 that there is a huge supply of global capital that is targeting commercial real estate: \$455.7 billion in 2017 and \$422 billion in 2018. On the domestic front, Equity REITs are pulling in billions at a time when they and other listed real estate companies have been moved on the stock exchange to a new separate Real Estate Sector that represents nearly four percent of the equity market capitalization of the S&P Composite 1500; REITs make up 98 percent of the sector class.

Secondary Markets

With interest rates remaining low and US fundamentals generally remaining strong, there is a growing anticipation that commercial real estate will enjoy even greater inflows of foreign capital going forward. The Wall Street Journal reported that during the first half of 2016 China's investment in US commercial real estate was up 19 percent year-over-year. Rosen Consulting Group projects that over the next five years' foreign capital will continue to invest heavily. A significant share of that investment is going to come from a growing "third wave" of investors composed of insurance companies and private equity funds that are following the lead of sovereign wealth funds and High Net Worth Individuals (HNWI). And while the focus of that investment has historically been on prime properties in gateway markets, it is now approaching the point at which the majority of capital is searching for too few investment opportunities, which is driving investors to expand into newer opportunities in secondary and tertiary markets.

Both investors and lenders are now actively looking into these markets and seem willing to take on additional risk to improve returns. Investors are beginning to move away from landmark, trophy properties to find solid opportunities in other promising markets. This follows a change in investment strategy to a focus on income-producing, yield-focused opportunities rather than primarily on capital preservation. These markets offer lower barriers to entry, higher cap rates and fundamentals that are improving as the economy grows. According to a *PwC 2015 Emerging Trends* report, investment away from the 24-hour cities and into 18-hour cities is emerging as opportunities in these markets are nearly double that of the big six gateway markets. Foreign investors are also taking a much more informed approach as they begin to look at shorter-term investments, which is opening up opportunities for more joint ventures with developers. This is especially true for HNWI who are more willing to fine-tune their investment strategy in order to capture income streams by entering the markets from which institutional investors are retreating due to risk-intolerance and a focus on capital preservation.

At the end of the day, the risk of a slowdown in the flow of foreign capital into commercial real estate is more likely to be directly related to the desire of foreign investors to invest rather than their ability. Although the volume of investment may slow, the US still provides the safest haven for capital preservation. In spite of these challenges, capital will continue to flow into US commercial real estate as investors become better informed and begin to take on added risk in secondary markets.

Investment in Infrastructure and Energy

NAIOP reported in its 2016 edition of *Economic Impacts of Commercial Real Estate* that development in 2015 supported 3.2 million American jobs, contributed \$450 billion to US GDP and developed 429.4 million square feet of space with capacity to house 1.1 million new workers. Their expectation includes accelerating construction spending with gains in fixed investment in commercial property, office, retail, health-care and distribution facilities. Infrastructure spending, as proposed by the president, could ultimately mean increased construction including factories, warehouses and commercial offices.

The construction industry, along with commercial real estate more generally, could also potentially benefit if more manufacturing moves back to the US, not just factories but warehouses, office space and to a lesser extent multifamily housing to accommodate any increase in the local labor force.

With the potential for the US to become a larger oil producer in pursuit of becoming energy independent, weak oil prices may result in reduced overseas investment from oil-producing countries. Early in 2016 CoStar

Group reported that nations driven by oil, gas and minerals such as Norway and Saudi Arabia had already pulled back investments as a result of the decline in crude oil prices. *Atlas Outlook 2016* argued that continued lower oil prices would bring changes in the investment policies of some Middle Eastern buyers, which may include lower demand for, and the sale of, existing assets. CBRE pointed out that depressed oil prices created low cash flow into these countries and consequently there was a decline in recycled capital outflows in 2016.

“There is no confirmation we are in a real estate bubble. If we were, however, in a bubble, then the election of Trump as president has delayed it from bursting.”

While the consensus in the industry is that the flow of foreign capital from these countries may slow, the overall flow of capital from non-oil producing countries will likely continue and may increase as investors opt for capital protection. If the plan to achieve energy independence is successful, commercial real estate will indirectly benefit from an improved and stronger economy resulting from increased development, higher employment and increased wages.

Regulation

There is a potential challenge to the EB-5 program, which offers residency to wealthy foreigners (and their families) if they invest in job-creating development projects with a minimum investment of \$1 million or \$500,000 in rural areas or communities where unemployment is higher than the national average. The program was extended to April 28, 2017, but there is strong resistance in the Senate over concern with fraud and lack of government control to ensure that the capital goes into distressed areas. Key elements under discussion are increasing the minimum investment amount to \$800,000 (which could be retroactive to June 2015) and revising the Targeted Employment Areas (TEAs). Legislation being considered will also add new rules for job creation, project pre-approval, investor source of funds, investor vetting and fund administration. This has been a very popular and successful immigration option for Chinese investors with 85 percent of EB-5 investors coming from China. At the present time, the waitlist is approximately seven to eight years to obtain a visa. This program is vulnerable, however, because of financial waste, fraud, and abuse allegations. Senators Leahy (D-VT) and Grassley (R-IA) have proposed a bill to eliminate the program.

The growth of global investments in US commercial real estate (see Figure 1) is also expected to be boosted by the reforms to FIRPTA, which allows foreign pension funds to invest through any structure and exempts them from the 15 percent withholding tax on proceeds of

real estate sales. It provides incentives to buy as much as 10 percent of a publicly traded REIT, up from 5 percent. This action is expected to bring additional overseas capital into the US as foreign pension funds are now exempted from the FIRPTA tax and withholding. The changes also increase the percentage of publicly traded stocks that a foreign shareholder may hold from 5 to 10 percent, without incurring FIRPTA withholding and tax upon sale.

INVESTORS

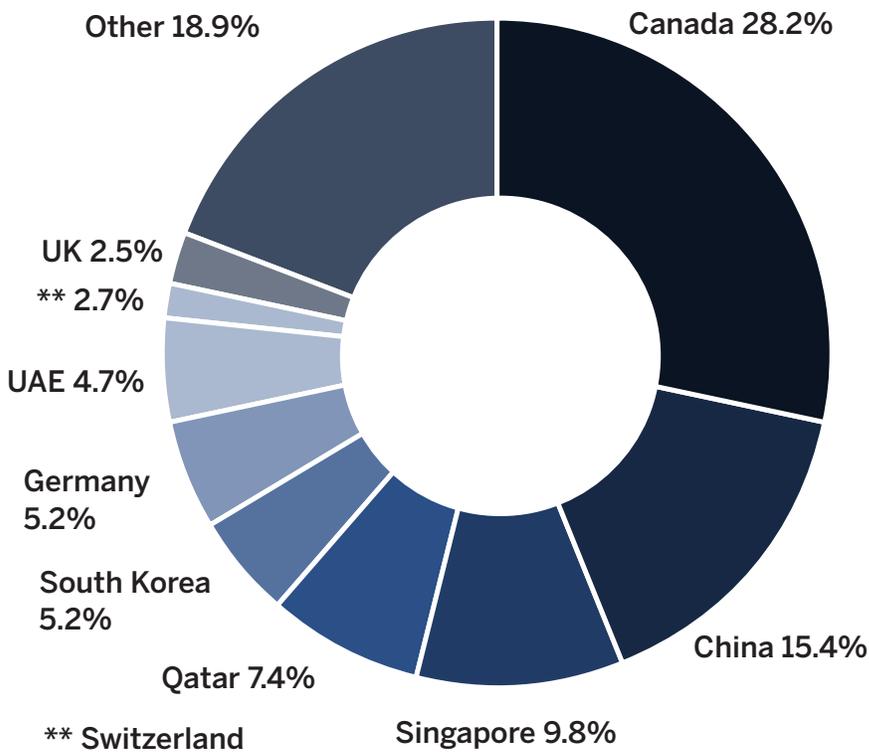


Figure 1. Commercial Real Estate Acquisition broken down by Share of Foreign Investment. Marcus & Millichap Q2 2016.

Even as the global political climate remains uncertain, international capital flows into US commercial real estate will likely continue with an expectation that they will increase as investment in America is still viewed by outside investors as the most stable and transparent investment in the world. They continue to seek the higher yields and value appreciation that they are unable to find in their own countries.

Foreign Capital

The flow of foreign capital into direct commercial real estate purchases during 2015 totaled \$91.1 billion, according to Real Capital Analytics, with Canada leading the way at \$19 billion.

And while foreign investment in major cities continues, secondary and tertiary markets are experiencing higher levels of investment, lower costs and a higher return on investment, particularly in the multifamily sector. This has been especially true for foreign sovereign-wealth funds and some of the large, emerging financial institutions in the Far East.

Although Chinese investors only make up 10 percent of all foreign direct investment into the US they rank among the top in every real estate sector. However, late in 2016, China's State Council sent a notice to all government departments to halt foreign real estate purchases of more than \$1 billion by state-owned enterprises. Though the rules are not new, they may be more strictly enforced in the future.

\$17.1 billion was invested by China between 2010 and 2015 of which \$9.5 billion was via the EB-5 visa program.

Chinese investors having invested \$15.9 billion into CRE in 2016, replaced Canada as the largest overseas investor for the first time.

\$58 billion is expected to be deployed into US CRE between 2016 and 2020.

China invested \$207.9 billion in CMBS.

\$8 billion in loans were made by Chinese banks for US CRE projects.

Figure 2. According to the Rosen Consulting Group in 2016, Chinese investors and companies have been eager to diversify overseas, into other currencies; favoring the US.

This movement of capital into the US is also being underscored by the “strengthening of the US dollar and the expectation that inflation will go up, job growth will improve and therefore commercial real estate will become a better hedge on a longer-term basis,” according to Marcus & Millichap. And, if US growth continues as expected, foreign investor interest will likely remain strong as the demand for dollar-denominated commercial real estate assets grows.

High Net Worth Individuals

Capgemini’s 2016 *World Wealth Report* concerning High Net Worth Individuals reported that their number grew 4.9 percent in 2015 while their wealth grew 4.0 percent, which is projected to surpass \$100 trillion by 2025. A survey by NREI revealed that between 6 and 25 percent of their commercial real estate investments were in private real estate equity funds in addition to direct investment in club deals, crowdfunding and investment in non-traded REITs.

The focus of HNWI investing tends toward a careful balance of risk and growth in an investment strategy that favors “buy and hold.” In its 2016 *US Trust Insights on Wealth and Worth*, Bank of America defined HNWI as broadly optimistic about the markets, generally guided by a disciplined approach they learned early in life that helps minimize abrupt reactions to rapidly shifting conditions. For commercial real estate, this supports their ability to make investment decisions faster and with certainty, which is important because generally 10 percent of their investment portfolios are in cash, compared with 25 percent for Millennials.

This growing pool of capital will be primarily focused on the preservation of wealth, income production and increased asset valuation, with their investment preference generally falling into two categories for the long

- 2,023,518 The number of households in the US with \$3 million or more, including 987,930 households with \$3 million to \$5 million, 716,611 households with \$5 million to \$10 million and 318,978 households with more than \$10 million in assets.
- 40% The percentage of Investors between \$3 million and \$4.9 million; 30 percent have between \$5 million and \$9.9 million; 30 percent have \$10M or more (including half with over \$25 million).
- 4 HNWI are represented in four distinct generations: Millennials (Gen Y)—13 percent, Gen X—24 percent, Baby Boomers—42 percent, Silents—21 percent.
- 35% Percentage of investors that are women. Men represented 64 percent.
- 65% Percentage of investors that are business owners; 16 percent are senior corporate executives.
- 48% Of the 32 percent, whose path to wealth was investing, 48 percent invested in tangible assets like real estate.

Figure 3. Bank of America identified several key statistics that help define High Net Worth Investors (HNWI).

term: single-tenant properties with long-term credit leases and multi-tenant properties in central cities. According to the BofA survey, one of their major concerns is the uncertainty surrounding the new administration, which has been a positive for commercial real estate. HNWI are becoming more focused on brick-and-mortar security for the long haul. And with over half of HNWI lacking experience in commercial real estate on a global basis—according to the Knight Frank 2016 *Global Wealth Report*—there is a huge opportunity for the industry.

Pension Plans

Pension funds have been following a clear path of increasing allocations to commercial real estate over the past several years as real estate has become a more mainstream alternative asset class, and they are expected to maintain that same course in 2017. Global pension funds have an even bigger appetite despite signs that commercial real estate may be moving into the latter part of the cycle as noted by the Pension Real Estate Association (PREA).

As reported by NREI, US Pension Funds increased their allocation to commercial real estate from 6.9 percent in 2015 to 7.3 percent in 2016. Their acquisition strategy is to focus on strong income potential, which is increasing their interest in industrial, multifamily and some retail, with the projected yields in industrial leading the way for 2017 and 2018.

Crowdfunding

There is an opportunity for investors to get involved in the financial side of commercial real estate, without being directly involved in property ownership through Marketplace Lending or crowdfunding. This form of

passive lending, also referred to as peer-to-peer lending, allows investors to participate in loans and equity for individual properties with as little as \$1,000, as opposed to investment funds that involve multiple properties. As crowdfunding is covered in detail in a separate chapter in this report, only the key elements of this source of funding are recapped here.

With small to mid-sized banks finding it more difficult to lend as a result of new regulations, crowdfunding is stepping in to fill the void by offering lower rates and better terms in light of lower operating costs and with a lighter regulatory burden. It has appeal to a wide audience, including lenders and investors and is expected to grow significantly and, as reported by Crowdnetic, will see annual growth of 25 percent or more in both debt and equity investments as investors respond to its low barriers to entry and ease of use as opposed to the alternative, REITs.

“Global commercial real estate is dominated by the US commercial business.”

According to a May 2016 report by Bloomberg—*Inside the Real Estate Crowdfunding Land Rush*—“Investors used US real estate crowdfunding platforms to pour \$484 million into real estate projects last year, according to research published [in April] by the Cambridge Judge Business School.” That’s more than three times the amount in 2014. The US has more than 125 real estate crowdfunding sites, according to Jason Best, a partner at Crowdfund Capital Advisors, who helped conceive the framework for crowdfunding. Less than three years after the Jumpstart Our Business Startups Act (JOBS) made it legal to solicit investments online, real estate crowdfunding sites are springing up all over the country. The market, however, may actually be larger as private placement investment RealtyShares alone originated more than \$130 million in investments for more than 270 properties in 2015.

But there is a growing concern about the potential for fraudulent schemes as regulation of the industry is limited at this early stage of its development. The answer may be provided in the future through the consolidation of platforms as larger competitors become successful, investor confidence grows and online debt- and equity-based investments become more popular. The industry believes that this will result in better security and better services as more resources, expertise and experience enter the industry. There is also the anticipated impact of Millennials, who will be increasing their participation in real estate and will find crowdfunding and its digital transactions an attractive vehicle. This will also apply to an increasing number of global investors like those from China who are already familiar with the concept of real estate crowdfunding and are part of the estimated \$2.5 billion in worldwide crowdfunding in 2015, which was expected to surpass \$3.5 billion in 2016.

WATCHLIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- EB-5 program modifications may negatively impact the flow of cross-border capital.
- Increased investment by Pension Plans and HNWI will continue in 2017.
- Global instability and uncertainty favor the US as a safe haven through investment in commercial real estate.
- Crowdfunding opens the door for smaller investors to participate in commercial real estate on a wide-range of investments.

TAKEAWAY

Globally there has been a major stockpiling of dry powder for investment in commercial real estate over the past several years, yet at the same time the volume of foreign capital being invested in US commercial properties continues at record highs. And that flow of foreign capital is expected to not only continue at the pace of the past few years, it is expected to increase. Global volatility and uncertainty will continue in the near term. Add to this the tax benefits of the recent legislative changes to FIRPTA and EB-5 programs for foreign investors, the emergence of foreign qualified pension plans, the continued search for a safe haven for foreign capital and solid fundamentals, and the prospects for continued growth in the flow of cross-border capital are positive.

AFIRE reported,

“The investment opportunity is the United States itself. The real estate fundamentals are sound; the economy remains strong; there are opportunities across all sectors of the real estate spectrum and in both gateway and secondary cities. The recent legislation bringing welcome relief from certain FIRPTA taxes should provide additional incentives for foreign investment into the US. In an environment that is regarded both as the safest and most secure in the world, with a strong currency and the best opportunity for capital appreciation, the US is the safest harbor.”



IN SEARCH OF DEBT

The Policies, Regulations and Reforms
Impacting the Availability of Debt



ABSTRACT

The government's response to the financial crisis of 2008-2009 involved enacting strong regulation like the Dodd-Frank Act, which had far reaching implications for the cost and availability of debt for the financial industry and commercial real estate. New risk retention rules, SEC regulation AB and Basel III have all made it extremely difficult for banks, both large and small, to provide the development capital needed to meet the continued growth needs of the industry. This chapter highlights a number of those regulations, along with potential changes to the tax code and action to be taken by the Federal Reserve that may result in significant impacts on commercial real estate.

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Takeaway

A CHANGE IN POLICIES

As a result of the policy of lowering interest rates to near zero to stimulate the economy following the Great Recession, the Federal Reserve became the largest buyer of US Treasuries through its policy of Quantitative Easing (QE). But now, based on a strengthening labor market and near full employment, inflation approaching 2.0 percent and anticipation that the economy will continue to expand at a moderate rate, the Fed is likely on a path to raise interest rates at a more deliberate pace having only increased the Fed funds rate twice between the end of 2015 and the end of 2016, and once in early 2017.

Eight years of exceptionally low interest rates have drawn investors into riskier assets, stoking concerns that commercial real estate prices have risen too quickly. With the expected increase in interest rates in 2017, the industry is anticipating greater pressure on cap rates, first reducing and then reversing further compression. As the cost of money increases and the availability of debt decreases, lenders, developers and investors will explore new markets and new avenues for financing, especially for new construction.

The Fed's View

As expressed in the Fed's semiannual *Monetary Policy Report to Congress*, it is their opinion that commercial real estate market prices

appear increasingly vulnerable to negative shocks. A noted concern is that prices have continued to outpace rental income, valuations exceed their pre-crisis peaks, and volatility in public markets, tightened regulations, maturing loans and uncertain foreign capital flows could create instability for commercial real estate. At the same time, they are concerned that investors, fearing that rising interest rates will pressure cap rates and weaken property values, will continue to reach for yield by taking on more risk in the marketplace.

“Removing CMBSs and 1031 exchanges will have a crushing blow on commercial real estate transactions so lets not do that.”

The current commercial real estate market is the result of an extended period of loans made at historically low rates. The increase in the availability of debt has resulted in incentivized risk-taking and increased borrowing with credit spreads widening as the cost of risk increased. The Fed believes that its tightening policy will eventually lead to a reevaluation of investment risk and a corresponding downward adjustment in valuation. The easing in underwriting standards that has existed over the past few years is beginning to reverse as restrictive regulations continue to evolve and loan pricing is increasing. The result is that lenders are becoming concerned and do not foresee significant growth in their loan origination volumes going forward.

Financing and refinancing will be impacted by how far and fast rates rise, but historically, cap rates have been fairly resistant to rising interest rates. Commercial real estate performance going forward will primarily continue to be determined by the availability of capital and the market environment, which are both expected to remain positive for the next several years. And while higher rates will tend to slow down transaction volumes and pricing, a strong economy will have a positive impact on fundamentals and operating income.

KEY REGULATION

An important trend to watch in 2017 is the reduced availability of debt capital from more traditional sources. Banks are tightening their lending standards in response to Dodd-Frank, which is limiting a prime source of financing, Commercial Mortgage Backed Securities (CMBS).

The challenge will be the much stricter lending guidelines mandated by

Dodd-Frank's Risk Retention Rules, which unless overturned or modified, will reduce the availability of debt capital and increase its cost. If this were to occur, commercial real estate valuations would go through a repricing period as investors begin to respond to the new policies.

Regulation AB

The Securities and Exchange Commission (SEC) has also affected the availability of CMBS through its 2014 Regulation AB rule that requires the chief executive officer of the securitization's depositor to personally guarantee that they have done all the due diligence possible to confirm that the information related to the loans in the collateral pool is correct. Should irregularities arise, a third-party reviewer will be tasked with determining whether or not the lender can be forced to buy back the loan; the guidelines for that determination are not yet clear.

The implementation of these rules at a time when the CMBS market is suffering from a 50 percent decline in overall issuance resulting from market volatility, pricing pressures and tightened spreads will have a major impact on the availability of credit. In 2007 the CMBS market was strong with 23 issuers delivering over \$250 billion in funds. In 2015 there were 46 companies but they only issued \$130 billion. For 2016 only \$67.2 billion of CMBS was issued according to leading provider of data and analytics, Trepp.

The now effective risk retention rules may result in the merger, consolidation or closing of some regional and smaller banks that do not have the capital to meet the five percent obligation for the five years required under the law. Major CMBS issuers presumably have the edge in adjusting to these new regulations, which would require lenders to hold as much as \$50 million in capital in a \$1 billion transaction. But even those with the available capital to do so are being pressed by the requirements.

And while commercial property valuations are currently high and interest rates are still relatively low, lender response to new regulation could further restrict the availability of debt, especially for marginal properties. Lenders are very concerned by the increased regulatory burden and examination process. In the absence of CMBS, investors are turning to regional and local banks that have always specialized in local real estate lending and have now increased lending to developers, filling the gap left by the decline in CMBS. However, the risk associated with regional and local banks that specialize in local real estate lending is that they are traditionally more susceptible to downturns in commercial real estate than the national banks. The American Bankers Association (ABA) reported in its *2016 Real Estate Lending Survey* that 65 percent of banks surveyed expect some type of measurable reduction in credit availability as a result of the recently released *Statement on Prudent Risk Management*

for Commercial Real Estate Lending from the Federal Reserve, which reminded financial institutions of existing regulatory guidance on lending.

In 2017, all of the participants in the industry are trying to figure out how to comply with the regulations. And while that is transpiring, another major challenge is coming on the scene.

CMBS Loans Come Due

The next wave of 2006 and 2007 CMBS loans (\$395 billion) are maturing in 2017, and the balance (\$300 billion) in 2018 and 2020, of which 70 percent are for less than \$10 million. A significant number of these loans were originated at peak valuations with very aggressive underwriting and many of them have already been extended once. Those loans that are facing a refinance challenge tend to be in the office and retail sectors that are carrying high Loan to Value (LTV) ratios. In light of the decrease in CMBS financing, borrowers are looking for alternate sources of capital such as getting an extension, bringing in a joint venture partner

“This is not new information but the commercial real estate business really does run in cycles.”

or selling the property, according to NREI. NREI estimates that roughly 40 percent of these properties will not be able to refinance, due to high leverage or being underwater. This does, however, provide an opportunity for accredited investors to participate in funding opportunities to recapitalize properties that generate adequate income.

In light of federal regulation and the Fed’s monetary policy, the availability of debt capital from all of the traditional sources will continue to decline and cost more. Banks have already begun to tighten their lending requirements and increase their costs in response to the new risk retention provisions as a hedge against losses. As a result, commercial real estate can expect to see an increase in alternative lending from institutional investors, pension funds and insurance companies, as well as some sovereign wealth funds and HNWI and perhaps through crowdfunding.

Basel III

The regulatory treatment of the High-Volatility Commercial Real Estate (HVCRE) classification has caused added concern for the financial industry. In January 2015, regulation was imposed to create the new risk-based capital category, HVCRE, for Acquisition, Development and Construction (ADC) loans. The Basel III agreement requires banks to hold more capital in reserve, which regulators argue will improve lenders’ risk management and their ability to absorb shocks brought about

by financial and economic stress. Banks are required to assign these loans a “risk weight” of 150 percent (compared to other business loans) in calculating the capital they must hold against these riskier loans, making commercial real estate lending for development costlier for the financial institution. Ultimately, the banks may reduce their construction lending and/or increase the cost of these loans. This increased loan pricing will apply to all borrowers, but with a much greater impact on smaller borrowers involving smaller HVCRE loans.

From the industry’s perspective, Basel III will significantly weaken the market and property values, as well as restrict the flow of capital in its effort to avoid the higher capital charges associated with ADC loans. In addition, the challenge of implementing the new standards means that loans will become more complex and, therefore, more time consuming and costly to underwrite and service. If the lender wants to avoid having the loan designated an HVCRE, the LTV ratio must be less than 80 percent and the borrower must contribute capital—in the form of cash or unencumbered marketable assets—equivalent to 15 percent of the “as completed” value of the property. In addition, any capital generated by operations must be kept in the project until the construction loan is converted to permanent financing, the project is sold or the loan is paid in full.

Smaller borrowers will especially feel the impact of both the availability and cost of debt. The impact of this regulation is significant, as reported by the ABA; “Exactly half of the banks surveyed currently have outstanding loans classified as HVCRE, and approximately one-third of respondents increased pricing after the rule went into effect to reflect the additional capital cost from the HVCRE classification.”

The multiple regulatory changes under both Dodd-Frank and Basel III will continue to slow bank lending to commercial real estate in the near term as they evolve and are rolled out, modified or eliminated by Congress.

New Lease Accounting Rules

The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) are focused on creating an integrated set of lease accounting standards as part of a larger global convergence initiative, a continuation of the Sarbanes-Oxley Act of 2002 that set new or expanded requirements for all public company boards, management and public accounting firms.

The goal is to improve lease information transparency and comparability by influencing the way in which companies make decisions regarding their real estate needs. The central issue in the change is that companies must recognize assets and liabilities arising from any lease with a

term of more than one year, which means that a majority of real estate leases will be coming onto the balance sheet (capitalized) and no longer be regarded as an operating expense.

There will be no grandfathering of existing leases, as those outstanding, as of December 31, 2019 (2020 for non-public entities), will be required to be accounted for under the new rules. As a result, companies will need to evaluate the impact of the rules for leases that are currently being signed. The challenge for owners is dealing with factors like lease renewal options that will now have important implications for financial statements. From the lessors perspective, there are concerns that lessees will seek to reduce their leasing exposure, pushing for shorter-term leases, and without renewal options. Consequently, lessors may be forced into significant lease modifications such as trading a lower rent in exchange for a longer lease—"blend and extend."

From the lessee's perspective, companies with a large number of commercial leases will see a substantial increase in their reported liabilities, resulting in a direct impact on debt ratios, the fixed-charge ratio that is commonly used by lenders to analyze the amount of cash flow a company has available for debt repayment. That may place companies, which are well within their fixed-charge coverage ratios at risk of default once the new standards are effective. A low ratio means a drop in earnings could be dire for a company, a situation lenders try to avoid. Debt to Equity and Return on Equity ratios will be negatively impacted, leaving some companies burdened with debt related to future lease payments where they were once debt free. This is a major challenge for companies with a large lease portfolio. At the same time, there is a concern that private companies, because the usage of their financial statements differs from public companies, should be exempt from the new standards.

WATCH LIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- As restrictive regulations continue to evolve and loan pricing increases, loan volumes are decreasing while the demand is increasing.
- Risk retention rules, Regulation AB and Basel III may negatively impact the availability and cost of debt.
- New lease accounting rules require assets and liabilities arising from any lease of more than one year to become balance sheet items, thus impacting negotiated lease terms.

- 70 percent of the 2006 and 2007 CMBS loans coming due are under \$10 million and tend to be in the office and retail sectors and are carrying high Loan to Value (LTV) ratios.
- As a result of Basel III, banks may reduce their construction lending and/or increase the cost of these loans with a much greater impact on smaller borrowers involving smaller HVCRE loans.

“Increased compliance and regulations make commercial real estate increasingly a very narrow margin business.”

TAKEAWAY

The number-one concern expressed by bankers is the regulatory environment, which they believe has the potential to completely reshape the industry. Increased regulation of lenders will directly and indirectly impact investors through higher interest rates, complex documentation, tighter loan terms and higher cost.

But the larger challenge for commercial real estate is the overlapping regulatory changes that appear to be affecting pricing, credit availability, liquidity and other parts of the financial system, the results of which may not be known for years. Regulations are still being designed and implemented, which will continue into 2019 and beyond. This is especially worrisome for investors involved in purchases below \$5 million who depend on local/community banks for 31 percent of their transactions and on regional banks for 25 percent of transactions.

The reality for the financial system and commercial real estate is that regulatory uncertainty will persist and it is highly likely that these new regulations will have the unintended consequences of diminishing loan credit quality, increasing borrowing costs and reducing credit capacity, which will price many issuers out of the market. The increased regulation placed on lenders will directly affect investors in the form of higher cost of capital, more complexity and tighter terms.

While these regulatory changes are intended to reduce investment risk, there may also be ramifications for liquidity and credit capacity. The cumulative effects of all these actions are now beginning to be fully realized, chiefly for credit markets and overall credit capacity. The immediate challenge for both the financial industry and commercial real estate is to monitor current market conditions and strategically prepare for varying possible outcomes as a result of the changes that are coming.

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CROWDFUNDING

A New, Interesting Alternative Avenue to Finance Commercial Developments

3

ABSTRACT

Increased federal regulations have impacted the financial industry's ability to provide sufficient capital to commercial real estate at a moment in time where there is still a continuing need for development funding. This has forced developers to seek alternate sources of capital, which has opened the door to online capital formation. Crowdfunding is a growing opportunity for the industry to tap into a vast number of non-accredited investors for both debt and equity capital. This chapter explores the JOBS Act and the opportunities it has opened up for commercial real estate, along with its challenges and limitations.

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Takeaway

A NEW CHANNEL FOR CAPITAL

Crowdfunding (online capital formation) is often referred to as “marketplace lending” or as a “peer-to-peer” portal or platform that gives investors—accredited and non-accredited—the opportunity to participate in the financial or equity side of commercial real estate. It is connecting investors with professionally managed properties by pooling their resources online in the same manner that has been done for decades through syndication. In this chapter, we look at the investment options crowdfunding offers investors, the pros and cons of this emerging platform and consider some thoughts about its future.

THE JOBS ACT

The Securities Act of 1933 established the federal securities laws that govern the registration of investment securities. Commercial real estate came into the picture when in 1960 Congress passed a law creating Real Estate Investment Trusts (REITs) in order to make it easier for individuals to invest in income-producing real estate. Up until 2012, REITs have been the major avenue for individuals to invest in commercial real estate without taking on ownership and the management responsibility of real property. It is estimated that over 70 million Americans have taken that investment option and, as of June 2016, have created an industry with a market cap that now exceeds \$1 trillion. But legislation in 2012 opened the door for an alternative investment option that is attempting to carve out a piece of the investment market.

CROWDFUNDING OPPORTUNITIES

In structuring opportunities for investors and sponsors (real estate companies), crowdfunding presents a number of options through its portals. A report by Atlas Realty—Top Real Estate Crowdfunding Sites for Investors—provided an overview of the five primary types of commercial real estate crowdfunding along with minimum investment amounts:

- **Direct Equity/Debt Investment with a Sponsor**—Allows accredited investors to directly fund real estate projects that are sponsored on the portal: RealCrowd (\$25,000), CrowdStreet (\$25,000), Acquire Real Estate (\$1,000).
- **Direct Equity/Debt Investment in a New Entity**—Forming a new entity for each individual deal rather than the actual project: RealtyShares (\$1,000 to \$5,000), Realty Mogul (\$1,000).
- **Auto-investments in Debt**—The most common type of portal that allows investors to set particular investment in debt criteria and the platform automatically allocates a certain amount of funds into investments that fit their guidelines: PeerStreet (\$5,000).
- **E-REITs**—Focused on debt investment and offer accredited and non-accredited investors a fixed rate of return, quarterly distributions and low fees for investments of \$1,000 or more: Fundrise (\$1,000).
- **Funds-of-Funds**—Allow investing across other real estate crowdfunding platforms to diversify holdings: AlphaFlow (\$25,000).

Real estate crowdfunding got its start with the passing of the Jumpstart Our Business Startups Act (JOBS). Subsequently the Senate amended Title III of the act to provide for the exemption of crowdfunding from SEC registration as well as exemption from states' Blue Sky Laws, making it easier for companies to sell shares to investors. In May 2016, with the issuance of Regulation CF, crowdfunding was opened up to anyone over the age of seventeen, provided they meet the SEC established investment limits, in particular those protecting novice investors. If an investor's net worth is \$100,000 or greater they can invest up to 10 percent of their annual income or net worth in any 12-month period, whichever is less. If their net worth is less than \$100,000 they can invest 5 percent of their annual income or \$2,000, whichever is greater. The JOBS Act opened an investment path to the \$7 trillion commercial real estate market to those "non-accredited" investors that make up 98 percent of America's potential investors.

CROWDFUNDING PORTALS

As of January 2016, under Title III of the JOBS Act, companies making an offering to non-accredited investors must use an intermediary, either a broker-dealer or a Financial Industry Regulatory Authority licensed Crowdfunding Funding Portal (also referred to as platform). A funding portal is defined as any person acting as an intermediary in a

crowdfunding transaction that limits the amount of money that investors can invest in a given year and caps the amount that a given project can raise from non-accredited investors at \$1 million a year. That limitation is a problem for most developers and efforts to-date to increase it have failed to pass Congress.

The types of equity or debt products investors are seeking through crowdfunding are generally not the assets that traditional commercial real estate lenders typically finance. As a result, there is a growing belief in the financial industry that if crowdfunding portals are successful on a larger scale they will democratize real estate investing. At that point, if traditional lenders elect to enter the space, it is believed that their strategy would be to acquire an existing lending portal rather than building their own. As of 2017 the industry is waiting and watching to see just how big an impact crowdfunding portals will have in the future. The question is whether they become a challenge to traditional lending or whether they carve out a small niche and never truly become an option for institutional borrowers. In the interim, the existing portals will continue to evolve and grow their market share.

Commercial Real Estate Crowdfunding

Crowdfunding in commercial real estate has capitalized deals for qualified sponsors (real estate companies) that typically range from small syndications of single asset deals under a \$100,000 to larger single property deals from \$1 million to \$5 million, with some well over \$100 million. As reported in research from the Cambridge Judge Business School, in 2015 investors used US real estate crowdfunding portals to invest over \$468 million into real estate projects (1 percent of the total market), which was a 300 percent increase over 2014, in deals averaging 66 investors. In support of this growth the report noted several factors unique to crowdfunding that are seen as game-changing drivers that are attracting new investors:

- **Speed**—By using algorithmic technology, credit decisions and underwriting now happen in minutes, not days.
- **Transparency**—Investors and borrowers gain visibility into the investment, including risks and rewards.
- **Customer-centric**—Portals bring brick and mortar into the on demand/mobile app generation.

Portals provide turnkey fundraising and investor management solutions that can be posted on their website or with white label Software as a Service (SaaS) solutions on the sponsor's website. In either case, they fulfill SEC requirements by digitally processing all of the required information and investor-funding commitments, managing closings, providing post-closing documentation and streamlining investor communications.



CrowdStreet

CrowdStreet is an example of crowdfunding in commercial real estate. The company focuses on investors having equal access to institutional-quality commercial real estate investment opportunities as a means of portfolio diversification and wealth creation. Their belief is that the economy is strengthened when real estate developers and operators are less dependent upon traditional capital markets to fund projects, have greater access to capital and spread investment opportunities and risk across a larger pool of investors. The company currently has 72 Sponsors on their platform with \$1.7 billion in managed investments, have distributed \$313.5 million to investors and have 667 commercial real estate projects under management.

Sponsors are the primary beneficiaries of crowdfunding in commercial real estate in the form of professional capital formation, exposure to a wider pool of investors and less time-consuming and costly regulatory requirements for both Direct-to-Investor and Special-Purpose Vehicle marketplaces.

- **Direct-to-Investor**—The crowdfunding portal is the technology intermediary that makes possible online capital raising between sponsors and investors in which the investors invest directly with the individual sponsor and not with the crowdfunding portal. Fees in this model are charged directly to the sponsor by the portal and not to the investors. Investors assume the risk for the performance of both the property (tenant performance, market, etc.) and the sponsor’s ability to perform as promised.
- **Special-Purpose Vehicle**—Investors participate in SPVs through a newly formed special entity, which is usually an LLC created and managed by the portal. The fee structure varies and may incorporate fees paid by both the sponsor and the investors. Investors also assume the risk associated with investing “with” the portal as the investment manager.

Investment Options—Debt and Equity

Through crowdfunding, investors have two investment options. “Debt” shares provide an ownership stake in the loan on the property and the investor’s return is paid from the interest on the loan. With an investment in the property’s “Equity” the investor shares in a percentage of the rental income and the pass-through tax benefits.

Debt

As discussed in the chapter In Search of Debt, the impact of Dodd-Frank and Basel III on the financial industry has reduced the availability of

credit as a result of the requirement for banks to retain more capital on their books and undergo routine stress testing. The cost of complying with these regulations is especially difficult for the regional and local banks that have historically been major lenders in the industry. This has opened up the opportunity for “shadow banks” like life insurance companies, private equity firms, CMBS issuers, REITs and crowdfunding portals to take up the slack and provide developers with an alternate source of funding.

Advantages

- A shorter investment hold time as debt investments are most often associated with development projects.
- Lower risk with the loan secured by the property.
- Steady income as the return is predictable because of the terms of the loan.

Disadvantages

- Returns are capped as a result of the interest rate on the loan.
- There are often higher fees as the portal usually takes a percentage off the top before paying out any interest.

“Commercial real estate is definitely in vogue and finding good commercial properties is an arduous task.”

Equity

Crowdfunding portals offer a much easier path to investing in commercial real estate with investments as low as \$1,000, which appeals to those investors who have limited capital or who are passive investors who want to add real estate to their portfolio but aren't interested in hands-on management. There are a number of advantages of equity investments over debt investments but the tradeoff is the increased risk.

Advantages

- No cap on returns, with the only limitation being the performance of the property.
- Investors benefit from deduction of certain expenses associated with ownership like depreciation without having to own the property directly.
- Equity investments usually involve lower fees, often a single annual fee ranging between 1 to 2 percent.

Disadvantages

- There is no fixed return and therefore higher risk.
- Longer holding periods that generally range from 5 to 10 years.
- There is no liquidity as there is no secondary share market.

THE FUTURE OF COMMERCIAL CROWDFUNDING

The Negative View

In its *Emerging Trends in Real Estate 2016*, ULI quoted a pension fund manager who viewed crowdfunding as a pressure that threatens the industry: “The important trend question is what sort of economic impact, in the long term, will Social Media and Internet-based platforms, which include crowdfunding, have on commercial real estate? I think they’ll disintermediate it. Information about specific submarkets and deal sourcing will be dispersed along a lot more quickly. Again, it comes down to scale. Will there be a crowdfunding Zillow? And will large-scale investors be inclined to access such a source for deal making, more than just information gathering?”

There are many who are skeptical about the future of crowdfunding, pointing out that while it may show impressive growth when measured on a percentage basis, it is still a model in its relatively untested infancy. As a result, one of the biggest challenges is how the sponsors and their investments will perform when the cycle enters into a down market. Doubters view it as nothing more than a niche, representing just 1 percent of the \$7 trillion commercial real estate industry.

THE FUTURE OF CROWDFUNDING IN COMMERCIAL REAL ESTATE

Despite the challenges and risks involved, commercial real estate crowdfunding appears to be growing. The future success of crowdfunding in the industry will be greatly impacted by how well the industry, regulators and investors address a number of key questions:

- How long has the portal or platform been active?
- Is the platform a mere listing service or does it work closely with a broker-dealer?
- Does it have venture capital backing and is it sufficiently capitalized to meet obligations?
- Does the portal or the platform handle the crowdfunded money?
- What are the portal’s due diligence and vetting processes for its listed opportunities?

Source: Forbes.com

As pointed out in *A Quick Primer on Title III Equity Crowdfunding*, there are key unknowns yet to be determined: “It is not as if the barriers to entry are being completely leveled—entrepreneurs and investors alike will still have to be conscientious of the investment restrictions, disclosure requirements and other limitations before determining whether equity crowdfunding is suited to finance their ventures.”

An additional concern is the risk involved in investing in a project online. As noted in a study from the University of Pennsylvania—*A Study on the History and Functionality of Real Estate Crowdfunding*—this is still a relatively new industry with many unknowns. “While there have been successfully crowdfunded real estate transactions, the sheer size and

“An innovative new way to get more people investing in commercial real estate.”

relevance of the marketplace, as it stands today, is still immature. While there are fundamental benefits of investing within a crowdfunding platform, it is even clearer that many have not yet been captured. Firms may market competencies such as ‘Speed of Execution’ and ‘Transparency’, but the reality remains that while these aspects will continue to improve moving forward, the platforms, as they stand today, still have a tremendous amount of work to do.”

Investors need to do more due diligence than taking projected returns for online investments at face value, recognizing that the majority of portals are not representing themselves as, nor should they be considered, investment advisers. Their function in underwriting projects is to ensure that the materials and projections presented on the site are within the “realm of possible outcomes” and are not fraudulent. Their job is not to determine whether the project will be successful and deliver the projected return nor are they underwriting the qualifications of the sponsor. Investors still need to do their own analysis of the risk factors involved with each project and not base their decision on projected returns.

Regulators and portals are both doing their best to prevent fraud in crowdfunding but personal due diligence is still required. Fraud exists and as crowdfunding grows and gains a larger market share the opportunity and potential for it to occur will increase until such time as stronger regulation is put in place.

The Positive View

There are many in the industry that believe that raising capital online will grow significantly in the future. Some are even anticipating that by 2025

crowdfunding will draw on par with private equity because regulations are making it difficult for small to mid-sized banks to lend. As examples of a bright future, NREI and Information Management Network have identified three crowdfunding portals to watch going forward—winners of their 2016 Commercial Real Estate Awards, recognizing their outstanding achievement in commercial real estate:

- **FundRise—Crowdfunding Innovation:** Creative problem solving in servicing the commercial real estate industry.
- **RealtyMogul—Crowdfunding Disruption:** A new innovation that will transform real estate investment.
- **RealtyShares (Crowdfunding Social Media):** A new initiative, program, platform or industry content that leverages new Social Media communication channels to improve the ability to interact with clients, gather intelligence and better serve their clients.
- **Other crowdfunding portal finalists included:** CAPFUNDR, NES Financial and Sharestates.

According to Fundrise: “Crowdfunding will be the democratization of real estate investment and will scale faster than anyone expects, creating efficiency for private commercial real estate transactions; it’s a huge market. What we’ve seen is, with the decentralized model, it can operate much more efficiently at much cheaper cost. It doesn’t have the entire centralized infrastructure that big [bank] branches have with big offices and corporate overhead. I think as you see crowdfunding get larger, and the sums of capital are bigger, I think you’re going to see it challenge the existing banking infrastructure, which is very centralized with a lot of overhead and additional costs.”

WATCH LIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- Crowdfunding provides additional access to unaccredited, smaller investors enabling sponsors to be more competitive with REITs.
- It provides the opportunity for investment in single properties via SPVs.
- The success of crowdfunding could provide an alternate capital source that is competitive with larger financial institutions.
- Provides opportunity for small real estate companies and developers that have been limited to qualified investors in limited partnerships.

- Opens the door to the majority of small investors that have previously been limited to investment in REITs.
- Drastically reduces the compliance cost for small companies and provides a more efficient model for access to both debt and equity capital.

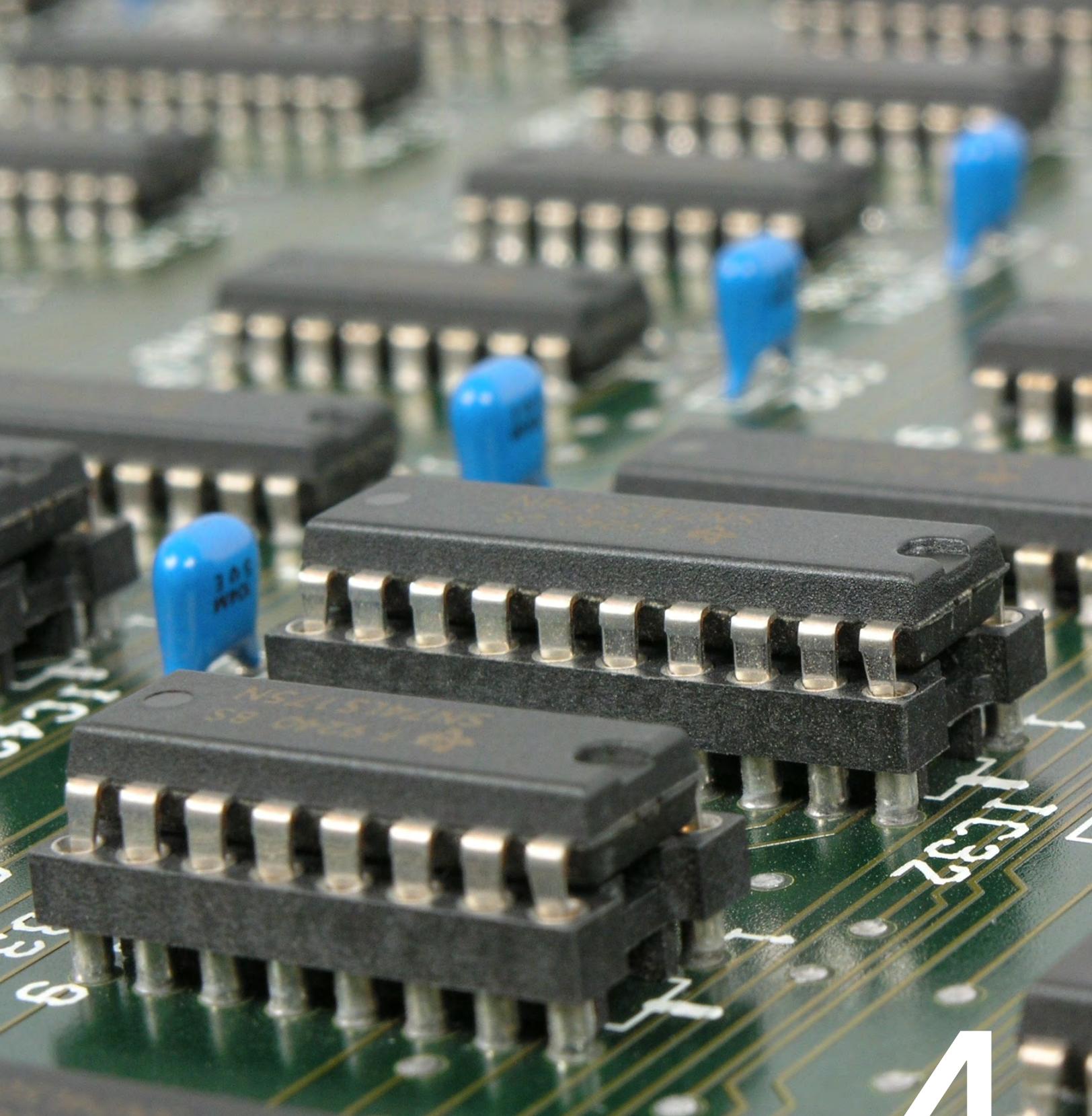
TAKEAWAY

The types of equity or debt products investors are seeking through crowdfunding are generally not the assets that traditional commercial real estate lenders typically finance. As a result, there is a growing belief in the financial industry that if crowdfunding portals are successful on a larger scale they will democratize real estate investing. But even if that does not materialize, crowdfunding has opened the door to commercial real estate's \$7 trillion market to 98 percent of the potential unaccredited investors.

In a few years, crowdfunding could become a principal method for developers to utilize to gain capital access. This could especially be true, according to CNNMoney, as they begin to attract and work with the 93 percent of digitally endowed Millennials who say they are wary of the public markets and that they lack trust and knowledge, when it comes to investing, after watching their parents suffer through the real estate bubble and the last recession. We believe, however, that if crowdfunding can take advantage of the opportunity open to it at this moment in time and move beyond its infancy, it can successfully carve out a solid niche in the industry, especially for smaller sponsors who up until now have been faced with the difficulty of raising capital via qualified private investors.

The bottom line is that crowdfunding, even with its limitations, has permanently changed the industry. It has made it possible for the industry to take the first step toward making investment available to a vast new investor pool that up until now has been virtually locked out. Online capitalization is here to stay; the only question is how big it will become.

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TECHNOLOGY

A Game Changer of the Entire
Commercial Real Estate Industry

4

ABSTRACT

Technology is one of the most challenging fundamental shifts impacting commercial real estate. The emergence of Big Data, as a key element in the decision-making process across all sectors of the industry, is driving the need for and the evolution of the technology required to transform that data into meaningful information. Developers, investors, owners and real estate companies are all faced with the necessity of incorporating technology into their strategic plans in order to remain competitive in a rapidly evolving, digitally driven and technology-enhanced world. This chapter delves into the future of technology in commercial real estate and the potential impacts it holds for all of the industry's participants.

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Watch List

Takeaway

A CHANGE IN POLICIES

There is fundamental shift taking place in commercial real estate with respect to technology and Big Data. Historically it has been nearly impossible to aggregate and analyze all the data that has resided in siloed Enterprise Resource Planning (ERP) systems and spreadsheets. But to remain competitive it has now become crucial for the industry to not only harness property and market data in real-time, it must be able to analyze that data in order to keep pace with today's changing and evolving market. Advances in e-commerce, cloud computing, mobile and data analytics have made that possible.

Furthermore, the incorporation of advanced technology is reducing risk, increasing efficiency and providing competitive advantage by facilitating better and more informed decisions through the use of multiple data sources, both public and proprietary. Mobile technologies, Big Data and the Internet of Things are game-changers for commercial real estate. In this chapter, we explore key challenges and opportunities the evolution of technology and Big Data present to the industry, and we begin with a brief overview.

TECHNOLOGY

Technology enhances data collection, storage, processing and access, but its most important value is in the analytics that facilitate better decision-making by providing the ability to dive deep into Big Data; asset lifecycle, operational costs, sustainability factors, etc. On the operational side, it improves collaboration and efficiency, risk management and mitigation, the standardization of processes and systems for data generation and the ability to better monitor, improve and accelerate the transaction process.

Technology is evolving and it is having a profound impact on commercial real estate by transforming the way we use, build, assess and transact properties. The Internet of Things (IoT), mobile access and 5G networks are making it possible to collect, analyze and share huge amounts of data almost immediately from anywhere at any time. It is driving the development of smarter buildings, increasing the depth and accuracy of the data collected during due diligence and improving management processes. Technology is also changing the way industry participants evaluate risks and opportunities, enabling them to effectively make timely better-informed decisions.

The collection and analysis of huge amounts of data has become a key factor in every facet of commercial real estate, from the manner in which sales, leases, development, financing, and investments are facilitated to the development, operation and management of smart buildings. For investors, the ability to drill down and analyze granular market and property data is resulting in better risk analysis and management. For the next generation of industry leaders, it is already an accepted way of life.

Leadership

In a global survey by KPMG—*Confronting Complexity: Research Findings and Insights*—it was revealed that over 94 percent of commercial real estate executives identified complexity as their greatest challenge, with information management ranking as one of the top two reasons. At the same time, pointing to technology as a solution, 84 percent identified information management as the solution.

Based on the interviews, as more companies invest in technology and the gathering and analysis of Big Data, the entire industry will benefit from the resulting availability of more and more comprehensive information. The automation of brokerage and leasing activities is already benefitting from advances in cloud computing and wireless technology that are driving the cost-effective and real-time availability of property

information. Customer service has been positively impacted by the availability of more brokerage services and data online. But the challenge for the industry is to adapt to the changing environment if they want to remain competitive in the marketplace. It's an evolution from static spreadsheets and phone calls as the primary tools for collecting, storing and analyzing data.

In a survey taken by Forbes—*CIT CRE Outlook*—only 11 percent of executives rated themselves as being on the “leading edge” when it comes to the implementation of technology. Most respondents recognize that the stakes are high but they continue to struggle in dealing with the challenge of working with the tech-enabled participants that are entering the industry and the impact that is having on commercial real estate investments.

“Data is coming at commercial real estate from everywhere.”

One solution has been to look outside the industry for technology talent but the increasing demand for data and analytics expertise across the business world has led to a battle for talent that is in short supply, making it among the most challenging and costly positions to fill and retain. If the industry is going to succeed in implementing key data and analytics strategies it will need to find a way to attract that talent, a process which the business world understands is far less about the job and more about the situation, opportunities and perks.

The consensus is that the challenge will grow as the level of sophistication of the analytics techniques being employed continues to evolve. The pace of innovation will also increase as more is being demanded from the data, such as more complex metrics and predictive analytics to provide greater capabilities to mine business intelligence from the data. And to meet that challenge the industry will increasingly become more dependent on the Millennials who are driving this paradigm shift. But their work style preferences are a challenge for the industry to accommodate, and if the industry is to compete it will need to address those preferences with the understanding that Millennials are not just part of the industry's solution, they will be its future.

No Turning Back

Technology is already making an impact on the industry as is evident in the transition taking place in the retail and industrial sectors (see *E-Commerce* chapter). It is also affecting the office sector as an increasingly mobile and connected workforce is changing how much space is required, where offices are located and how that space is designed,

used and managed. The workplace is being altered to support a mobile workforce, providing technology-enabled networks for greater flexibility for both the organization and the employees.

These changes are touching every facet of the leasing process, especially the definition of what constitutes standard tenant improvements. Going forward, space design will be more than laying out a standard office or cubicle as companies are increasingly looking for ways to leverage tech-enabled workspace to improve operational efficiency that involves multiple business units. Space requirements will need to follow. For developers and owners this presents the challenge of tenants no longer requiring large floor areas as they downsize into smaller spaces to accommodate their changing workforce needs.

RPR® - REALTORS PROPERTY RESOURCE

RPR Commercial is a great example of the strength of a data depository with intuitive functions to slice and dice data to determine business sustainability. RPR helps with site selection using data sets such as active listings (sale and lease), public records (off-market deals), traffic counts, business points of interest, demographic and psychographic insights and consumer spending data. Their reports depict current market activity as well as future projections. NAR is arming commercial members with opportunities to compete for deals without incurring high prices for multiple technology subscriptions.

The challenge facing commercial real estate is to move out of its traditional compartmental operating mode and begin to respond with a more collaborative approach. That is the only way the industry will be able to keep up with the advanced technological requirements of its clients. And that requires the ability to take control of another game changer, the gathering and analysis of the data that is rapidly becoming a critical element in the future of commercial real estate.

BIG DATA

McKinsey defines Big Data as datasets whose size is beyond the ability of typical database software tools to capture, store, manage and analyze. And IBM puts that in perspective by stating that more than 2.5 quintillion bytes of data are generated each and every day, and 90 percent of the data that exists in the world today was created over the past two years. And the world is racing to gain access to, and control of, that data in virtually every corner of the business world. It is the race for that information that is challenging the industry to adopt and adapt the technology required to gather, analyze and control the vast amount of data that exists in the industry.

The industry is beginning to take action as more than half of corporate real estate leaders who responded to a CCIM survey said they plan to become data-centric by 2017, using corporate real estate data not just to support opinions or decisions but also to shape corporate strategy. But as critical as all the available data is, there is a more important aspect to the process. It's not about how much data is gathered and sorted, it's about how that data is analyzed—data analytics.

Data Analysis

Data can be gathered almost instantly but it is only valuable if it can be analyzed, managed and turned into actionable information by utilizing analytics platforms that improve evaluation of long-term value, risks and costs and that result in better-informed decisions about site selection, transaction negotiation, design, management, etc. New technology and cloud computing are advancing the use of analytics in developing the granular level information needed for accurate decision-making, which includes unstructured data such as Social Media posts, images and a host of textual information. This is making commercial real estate more transparent by providing developers, investors, owners and brokers with access to the information they need to make accurate decisions.

However, there is the challenge of depending upon the data and analytics to the extent of weighting it far more heavily than it justifies in the decision-making process. And this is impacted by where commercial real estate gets its data, its quality and how it is analyzed, which frequently involves the utilization of third-party providers for analysis of vacancy rates, rent levels, cap rates, comparable sales, etc.

“Even when it comes to commercial real estate, people still want to see it, feel it, touch it.”

According to Colliers, while it's no secret that commercial real estate is heavily data-driven, as the deals brokers and owners make in any given market depend on a number of key points—levels of availability, new space being built, employment trends—the industry still doesn't see itself as a data business. But that could soon change as the industry embraces predictive analytics. It's only a matter of time before there's an effective software solution that pulls in even more data and turns it into actionable analysis that enables brokers to be more proactive.

Workflow Automation

Apartment units have tenants moving in and out on regular basis, posing challenges for landlords and property managers, whose profit margins depend on maintaining high occupancy rates. Data analytics platforms like Rentlytics give owners and managers greater transparency into the performance of their portfolios, both on an overall basis and at the level of an individual asset. By identifying which buildings in a portfolio are having difficulty maintaining target occupancy rates and drilling down to address root causes, landlords and portfolio managers can improve profitability.

According to an article in TechCrunch—*How Startups Are Making Real Estate Businesses More Efficient*—“US commercial real estate is a \$12 trillion industry, with a significant percentage of revenue concentrated in a handful of REITs and brokers controlling extremely high-value assets. Until very recently, these firms were reliant on outdated legacy software and, in some cases, pen and paper to manage their vacancies and schedule tours for prospective tenants.”

“Today, companies like VTS and Hightower are revolutionizing the commercial real estate industry by centralizing a firm’s data in a single cloud-hosted database and making it the system of record for agents to manage their workflows and customer relationships.”

“Because these assets are so expensive, the value of shortening the time from vacancy to occupancy through improved data and information flow between owners and brokers makes an investment in information technology a no-brainer. At some point, companies like VTS may even be able to provide market comps by anonymizing firm-level data and aggregating it into industry-level benchmarks by zip code.”

The Extent of Big Data

Historically, the gathering and application of data has been a secondary issue for the industry because it was often unavailable. But now, with the emergence of new technology, a shift in focus is taking place that is disrupting the industry. The prevalence of Social Media alone is changing how firms promote themselves, cloud computing is making it possible for companies to scale faster and become more efficient and advanced analytics are making data more accessible and useable.

However, the challenge is in how to process the enormous amount of collected data and integrate it into the investment process at an earlier stage with the goal of leveraging the value of the data to facilitate better and more efficient investment decisions. In the following sections, we look at the impact that technology and Big Data are having on key participants in the industry as they begin to address the challenges: Companies, Lenders, Developers, Investors and Owners.

THE IMPACT ON COMMERCIAL REAL ESTATE COMPANIES

Commercial Real Estate companies are becoming more aware of the added value and competitive advantage that can be gained through the use of technology to gather and analyze the vast amounts of data needed to address client demands and expectations. And analytics are providing data-focused brokers with the tools that allow them to provide their clients with granular insights about long-term valuation, risk assessment, true costs and yield that data-centric investors are beginning to search for and rely on.

Augmented reality, virtual reality and user-driven experiences are rapidly becoming the norm as a new generation of technology-driven individuals moves into commercial real estate. However, many companies are not yet fully meeting the challenge. They struggle with connectivity and access to data because they lack the right technology platforms and capabilities to aggregate and manage the data, which is compounded by the fact that technology continues to evolve and the amount of data continues to expand.

Integration

The integration of technology and Big Data is the future for commercial real estate. It is giving companies multiple ways to meet the industry's growing demands for the flow of unlimited real-time information by improving their capability to:

- Provide better client service through improved company collaboration and higher productivity.
- Better monitor process performance and more efficiently adjust and improve the quality of the information.
- Provide better transparency in decision-making processes by making quality information readily available to the client.
- Utilize cloud-based data in making real time decisions possible with access to data from anywhere at any time.

One of the keys to the integration of technology and Big Data is advances being made in distributed technology, which has advanced to the point where companies can now host physical asset types in the virtual world in a distributed and nearly tamper-proof format. And one technology that is making this a reality is "blockchain," a highly scalable and secure database which is the public transaction database for Bitcoin.

What is a blockchain?

A **blockchain** is a distributed, decentralized transaction ledger, saved by each node in the network, which is owned, maintained and updated by each node. It's a peer-to-peer system. No central authority manages the transaction flow.

The term blockchain comes from the **graphical depiction** of how hashed transactions are added sequentially and immutably to the ledger.

A “**hash**” is a unique identifier and shortcut that's created when actual transaction data is passed through a cryptographic tool in order to keep transaction data secret.

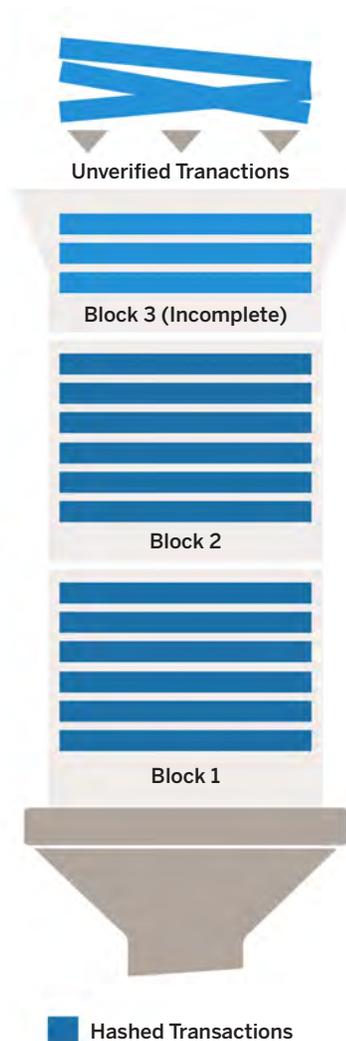


Figure 4. Graphical Representation of a Blockchain.
Source: PricewaterhouseCoopers

Blockchain

Blockchain technology in commercial real estate can provide an interesting alternative to the excessive amount of paper and manpower used in the industry today. According to ULI, “this technology will make it possible for every property (everywhere) to have a digital address that contains occupancy, finance, legal, building performance, physical attributes and a historical record of all transactions. Additionally, the data will be immediately available online and correlatable across all properties. Standard practices that normally involve specialists, like title search, legal, finance, etc. will be less needed or in most cases totally unnecessary. The speed to transact will be shortened from days/weeks/months to minutes or seconds.” The International Blockchain Real Estate Association (IBREA) highlighted a number of the benefits this technology will bring to the industry:

- The finance industry will have access to real-time data to structure risk-appropriate and highly profitable transactions.
- Real Estate transactions will begin to resemble the buying and selling of stocks/commodities.

- Property management firms will be structured as ultra-transferable service providers that convey as building ownership changes.
- Buying and selling property will become much more fluid and real-time. A deal that used to take months can be made in a matter of minutes. Real-time simulations can be run to compare far more parameters to determine investment potential.
- A bustling community of online products/services will flourish to connect and correlate environmental data, financial markets data and political stability/instability data, among others, to return on investment and risk potential for properties globally.
- Property ownership norms will also change. The timeline reduction of buying and selling property will fuel the notion that ownership of a property can be more transient. It will be the norm to see multiple property owners within a year. It will increase the perceived liquidity of physical property and buildings/structures as liquidity is directly related to the speed it takes to convert to cash.

Blockchain is just one example of how advancements in technology are rapidly automating commercial real estate, and its industry-wide implementation would have an enormous impact on the industry. In addition, developments in cloud computing, the integration of mobile and Social Media and instant access to real-time property information are facilitating faster and more efficient sales and lease negotiations for the brokerage industry. JLL is a good example, having already launched its online transactional marketplace that allows tenants and landlords to connect and complete their entire real estate transaction online.

Technology will change the industry as all those who interface with the industry are already well entrenched in the process of automation, including developers.

THE IMPACT ON DEVELOPERS

The impact on commercial real estate developers can already be seen in all areas, but most directly in the office, industrial and retail sectors. In this section, we review several of the key impacts that technology is having in the office sector where it is making buildings smarter by enhancing how data is collected, analyzed and managed throughout the development, leasing and management processes.

The progression of technology across the entire business world, coupled with the advancement of the digital Millennial generation into the business mainstream, is having a major impact on the industry. How people shop, how they live and their working environments are all changing and constantly evolving. And nowhere is this having more of an impact than in the office sector where buildings are becoming fully connected and networked to provide almost instantaneous access to Big Data via the IoT. And technology is providing mobile tools for acquisition, ownership and leasing in the form of collaborative file-sharing, cloud-based computing and investment analysis tools.

The days of private offices and cubicles are rapidly declining as the desire for open collaborative office spaces that provide highly flexible and mobile workspaces become the norm. The ability to move more freely within the work environment requires a new type of infrastructure and therefore it is altering the space itself.

Technology has also opened the door to working remotely, which has led to a declining demand for office space as the desire for less traditional workspaces has grown significantly. In 2010, the average space allocated per employee was 250 square feet and CoreNet projects that in 2017 it will further decrease to 151 square feet. With less required space per person, the new open layout designs result in an increase in the overall cost for additional air conditioning, rest rooms, electrical, networking, HVAC, etc.

The challenge for developers is to make better-informed decisions by incorporating technology into site selection, purchase/lease negotiations and building/workplace design. In addition, property management benefits from all the advantages provided by smart buildings: improved data collection, energy efficiency, better data review and management and the automation of building systems and operation (see chapter on Sustainability), all of which can provide a competitive advantage to the technology- and data-focused investor.

THE IMPACT ON INVESTORS

One of the major challenges for investors is finding the detailed information needed to efficiently analyze rental income risk in order to make more effective decisions. Traditionally that has meant relying on factors like lease data and the tenant's commitment and ability to pay rent throughout the lease term. Today, investors are not only expanding their market reach, they are expanding their utilization of technology to drill down into the volumes of Big Data that are now readily available in order to extract more detailed information about markets, properties, tenant payment delinquencies, risk scores, late-payment history, etc., and use

that information to analyze rental income risk. In the process, the expectation for unlimited real-time information has become the new norm as investor software programs have advanced the analysis of Big Data and made it more readily available.

THE IMPACT ON OWNERS

It is evident from our interviews that technology has opened up a wide range of opportunities for property owners. Owners can access data from multiple public and private databases and apply analytics to provide increased risk analysis during the lease negotiation process and throughout the term of the lease. Technology is also transforming the way buildings are managed through the use of remote sensors and automated data processing to enhance operations, reduce costs and yield higher returns. In this section, we highlight two key areas that will significantly impact the future of commercial real estate development and ownership: smart buildings and autonomous transportation.

Smart Buildings

Smart buildings have been evolving for over 20 years but are now employing the use of advanced sensor technology and the IoT to enhance operation, return and value. The result has been a major improvement in the capability afforded owners, managers and tenants to take more control over their operations. Smart building technology has increased the importance of investment in the design and development of intelligent buildings to provide market differentiation and value beyond just location.

**“Technology is an incredible tool,
but it is also an incredible distraction.”**

Through technology, owners now have a greater, more detailed and accurate ability to evaluate and assess the overall operating potential of the property. It also enables owners to provide potential investors access to extended operating data, enabling them to make better property valuations, risk assessments and investment decisions. Owners are also able to more effectively control building operational costs and performance by monitoring, regulating and reducing energy, waste, repair, maintenance and administrative costs with technology-enabled building management systems (BMS), making the property more competitive in the market place.

The IoT provides owners the ability to add value through the automation of multiple tasks with machine-to-machine (M2M) technology that monitors energy usage, increases efficiency and lowers operating costs. These processes also provide long-term data on energy usage, building maintenance and operating costs that investors are interested in. Smart monitoring systems can also prevent equipment failures that impact tenant occupancy by scheduling preventive maintenance and replacement.

Smart buildings combine multiple systems into one integrated solution. Integrating everything from HVAC and lighting to blinds and access control enables owners and managers to ensure that electricity is not wasted, making the building greener and more marketable. As the usage of technology accelerates, smart buildings will provide owners and companies with more advanced, cost-effective infrastructure and solutions, ensuring that they remain competitive in the future.

Commercial real estate is focusing on the future as major metros look toward developing master plans for creating “smart cities,” utilizing the interconnectivity of telecommunications and transportation. If urban planners can work with technologists this will create a whole new world for commercial real estate. And keys to that evolution will not only be smart buildings, they will include the advancement of driverless cars and trucks.

Autonomous Vehicles

According to a report by Business Insider Intelligence, there will be an estimated 10 million self-driving cars on the road by 2020 with commercial trucks expected to be commonplace by 2025.

One percent of all US vehicles on the road are trucks, and even though drivers cannot be required to drive more than 70 hours in an eight-day period, they account for 5 percent of all miles driven and 10 percent of deadly accidents. For the industrial sector, self-driving trucks will transform logistics and have a major impact on distribution between warehouses, stores and residences. Furthermore, warehouses will get larger and be located further away from city centers. Self-driving trucks with automated unloading warehouse facilities will dramatically alter distribution building design and site selection decisions with more warehouses located in cheaper more distant locations.

Cars sit idle approximately 95 percent of the time and yet an estimated 17 percent of household budgets go to transportation. For the family and the businessperson, the goal is to provide self-driving cars that can park themselves in outlying locations to facilitate a reduction in the demand

for parking space. The freed-up space in existing parking garages can then be utilized for alternative purposes. Office and retail sites with freed up buildable space offer additional investment opportunities if new structures are built in existing parking lots or if existing structures are replaced by new developments. Multifamily will also benefit by converting freed up space for alternative uses, making urban property with poor parking ratios more economically viable.

Many we spoke with see autonomous vehicles (AV) as a game changer for commercial real estate. They believe that lines between urban areas and the suburbs will become blurred as the population ultimately turns to either the new Uber AV or rides in their own AV that takes them to work, goes offsite to park and returns to take them home. The removal of excess parking in the urban core will open up space for new alternative development projects that are tied to the advancement of technology.

WATCH LIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- Smart buildings provide developers with a competitive advantage in the marketplace with both tenants and prospective investors.
- Autonomous vehicles will significantly impact development in every sector of the industry as new building designs open up more options to satisfy customer requirements.
- Increased integration will provide owners and investors with the advanced access and analysis needed to better assess risk and property valuation.
- Leveraging big data provides smaller companies the ability to tap into the vast amount of data that was previously the purview of larger companies.

TAKEAWAY

Technology will continue to enhance every aspect of commercial real estate, from smart buildings to driverless cars, trucks and busses. Many believe that by 2025 it will have both altered the economics of entire subsectors of the industry and changed the way real estate developers and the investment community operate. How we get data— from

sources like RPR, NAR, Xceligent, etc.—analyze it and manage it, as well as use it to determine every aspect of where we work, how we get there and what we accomplish on the way, will be affected by technology. It has already altered the office sector as an increasingly mobile and connected workforce is changing how much space is required, where offices are located and how that space is designed, used and managed.

The workplace is being altered to provide technology-enabled networks with greater flexibility for both the organization and employees. These changes are affecting every facet of the leasing process, especially the varying definition of what now constitutes standard tenant improvements as standard offices and cubicles are slowly receding into the past. Companies are increasingly looking for ways to leverage tech-enabled workspace to improve operational efficiency across multiple business units.

Over the next decade, the evolution and advancement of technology will result in retail and industrial commercial real estate undergoing significant change. Rapid changes in the application of digital technology will continue to reduce demand for retail and office space, while increasing demand for new types of warehousing. The convergence and interconnection of technology and data will have a profound impact on every facet of the industry and the technology that is now challenging and disrupting commercial real estate is the very technology that will provide the solutions needed to meet the challenges.

Companies will have to develop strategies to deal with these challenges as no one will remain insulated from the change. They will have to alter how they interact with and serve their clients and move out of a traditional compartmental approach to business. Brokers and agents will need to adapt and take advantage of the opportunities technology provides in order to remain relevant, effective, competitive and profitable in an evolving industry.

This is not just a new tool, technology will totally redefine the way commercial real estate is transacted and developed in the next 5-10 years.



E-COMMERCE

Changes Impacting Many Different Sectors of Commercial Real Estate

5

ABSTRACT

E-commerce has been steadily growing and invading every part of the economy, and now it is expected to have a significant impact on commercial real estate. As the Millennial generation moves into the heart of their business careers, their preference to be “totally connected” with immediate access to the Internet of Things has followed them into the business world. For the industry, the biggest impact has been the beginning of the transformation of the retail industry into a “click and knock” strategy that is not only altering what retail centers look like, it is driving massive changes in the industrial sector. This chapter looks at this paradigm shift and how commercial real estate is responding.

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A GROWING INFLUENCE

In 2016, the National Retail Federation reported that for the first time, shoppers made more purchases online during the Black Friday weekend than were made in the stores. For the first time since shopping malls and big box stores became part of the American way of life, e-commerce is emerging as the future platform of choice. And in the process, it is impacting every facet of the retail business from searching to purchase and delivery, making the whole process more complex.

The complexity involved in supply chain management now centers around the delivery of goods to the customer at any time and place from any platform. The fast delivery times promised by the retailer are directly impacting their real estate needs, and the ripple effect has become a game changer for the retail and industrial sectors.

As e-commerce sales skyrocket, there is a rapidly growing demand for “last mile” distribution points in major cities. The industry is responding with a shift in focus away from existing regional warehouses built to service regional retail outlets to the development of large distribution centers to satisfy the growing movement with “bricks to clicks” evolving to “click to knock.” And this consumer shift in shopping preference is creating a number of challenges.

In 1998 Jeff Bezos set the strategy which brought about the Amazon Effect: “Commerce is simple—you find it, buy it, and ship it. E-commerce, however, is much more about customer behavior evolving.” And in answer to that challenge, Amazon has taken the first step in bypassing FedEx and UPS by partnering with Air Transport Services Group to run its own airfreight delivery operation flying 20 Boeing 767 cargo planes to more quickly and efficiently fulfill its orders. In addition, to begin to satisfy the customer’s desire for immediate gratification, it has already taken the first step in initiating delivery by drone. And commercial real estate finds itself in the midst of this shift, trying to adapt to the changing demands.

The more that Amazon drives up consumer expectations around service levels, the more that competitors in the retail space are going to need to develop their fulfillment infrastructure to keep pace. And that means having a real estate strategy that factors in the technology to process the order and the cost of new fulfillment and distribution facilities to ensure rapid response and delivery times. In this section, we examine a number of the key challenges commercial real estate faces in adapting to this evolving consumer behavior.

A PARADIGM SHIFT

In order to compete, retailers are dealing with the adaptation of an online strategy into a business strategy that has previously been focused on malls and strip centers. It’s a switch from traditional retail to a mix of e-commerce and destination retail that involves reducing the number of retail locations and opening new industrial distribution and fulfillment centers. In the process, they face two major challenges: refining their inventory and real estate strategies to reach an audience of new customers, and adopting new strategies to facilitate online orders and deliver products to customers from a variety of locations.

As the percentage of online sales continues to grow, retailers are focusing on fewer stores in key locations. They have slowly been following a trend of downsizing the number of stores and reducing store size. Green Street Advisors estimates that approximately 800 department stores, representing roughly 20 percent of all anchor space in US malls, will close over the next few years with many malls following suit. They report that Sears alone will need to close 300 of its stores (43 percent) to regain the sales per square foot it had in 2006. As a result, major mall owners are increasing their capital investment to make their properties more attractive to today’s consumers by adding restaurants and “experiential activities” that are not subject to Internet competition.

New Supply Chain Strategies

E-commerce is forcing retailers to rethink their supply chain strategy all the way through manufacturing, transportation, distribution, sales and fulfillment. With the timeframe from online purchase to delivery continuing to be compressed, the challenge of locating the inventory close to the final destination has become a main driver for delivery centers. But locating property close to core urban areas is becoming more difficult and costlier, moving retailers to consider smaller suburban buildings that may not be perfectly located but are close enough to satisfy their infill requirements. All of which is resulting in increased demand, rising rents, lower vacancy, higher absorption and greater competition for older and obsolete industrial buildings based solely on location in deference to the time required for development or redevelopment.

“ A retailer with \$1 billion of in-store sales requires approximately 300,000 to 350,000 sq. ft. of logistics space. But the same retailer would need approximately 1 million square feet of logistics space for \$1 billion in e-commerce sales.”

The desire for maximum flexibility and the ability to expand and contract their need for space as dictated by their e-commerce strategy can extend the development time, which is already longer than it takes to build a traditional warehouse or distribution center. Retailers now require these facilities to support state-of-the-art technologies and improvements such as excess clear heights, larger bays, greater parking and vastly more power to run fulfillment equipment. This is forcing owners to deal with the risk that the new above-standard tenant improvements will become today's standard. There are, however, retailers that are taking a different approach.

Omnichannel Strategies

In an effort to avoid the costly transition to major distribution facilities there are retailers that have opted to use their existing stores and in-store inventory for local pickup and delivery as their fulfillment strategy. Others are entering into agreements as marketplace partners with Internet providers to broaden their customer reach. Companies like Amazon and eBay provide facilitation and fulfillment services for a broad spectrum of companies and products.

Managing all of the purchasing and shipping options—in store, online, Smartphone, tablet, call center, etc.—is referred to as omnichannel; order from anywhere and fulfill from anywhere. This often incorporates the services of companies like DHL Supply Chain & Global Forwarding as third-party logistics providers (3PL) that specialize in integrated operation, warehousing and transportation services. They provide

delivery service pricing based on the distance the package travels within their network. The greater the distance traveled between the fulfillment center and the delivery location, the higher the transportation costs and the longer the transit time; the closer to the origin the lower the cost and the faster the delivery times. This is the point in the supply chain where real estate and logistics intersect.

IMPACT ON RETAIL AND INDUSTRIAL

What has been bad for retail—declining sales, closing stores and decreasing construction in the face of e-commerce—has been a windfall for industrial. The result is the evolution of the new “retail-industrial” that has placed a high demand on close-in modern warehouse space in response to the continuing evolution of supply chains to more efficiently and rapidly distribute products. The right strategy for retailers is to align fulfillment commitments with inventory and real estate strategies. With multiple fulfillment centers, retailers are required to develop their information technology, order and inventory management operations, and logistics networks so that inventory selection occurs at the facility closest to the delivery destination. And that requires facilities developed to support state-of-the-art technologies. It also means a focus on cubic volume and multiple levels rather than floor area. According to industrial real estate developer Prologis, “e-commerce requires three times as much logistics space—or more—as their brick-and-mortar counterparts.”

According to Cushman & Wakefield, the US industrial market absorbed a record-setting 282.9 million square feet in 2016, setting a new record. As of January 2017 the sector had registered 27 consecutive quarters of net occupancy gains with national logistics-related warehouse vacancy declining over 130 basis points to 5.6 percent while at the same time 156.8 million square feet of new spec space came onto the market.

Demand

Leaders interviewed say that the shift in space requirements has opened the door for developers and investors to satisfy tenants with pre-existing warehouses where time to operation is critical or a build-to-suit (BTS) option when immediacy is not a factor. In either case, that generally comes with a demand for property in markets near UPS and FedEx hubs in order to satisfy last mile and same-day delivery requirements. In response, commercial real estate will need to continue to evolve to meet the challenge and stay out front of the demand.

During this cycle, retailers have absorbed most of the limited warehouses and distribution centers located near the largest US population centers. Consequently, warehouse rents have been growing roughly 5 percent per year and the competitive demand for land closer to larger cities has increased market valuations.

New and expanded distribution facilities are outpacing expectations and

are attracting more investors. According to NAIOP, foreign investors have traditionally not been very active in the US industrial property sector, investing an average of only \$1.5 billion per year over the past 15 years. But in 2015, that figure increased 18 times to \$27.3 billion, representing a 30 percent share of all foreign investment in the US. And for the first-time foreign capital was the number one investor in industrial real estate.

It is anticipated that 2017 will see this trend continue as new and expanded distribution facilities will outpace expectations and investors will continue to buy into the expanding market. In its *Emerging Trends in Real Estate for 2017*, PwC reports “industrial real estate ranks near the top of real estate investment classes right now, and the two sub-sectors that outpace all others are fulfillment and warehouse investments. With the rise of e-commerce and more retailers migrating their operations to online fulfillment, this is not surprising.”

Opportunities

E-commerce is not only increasing the demand for warehouse space, it is changing the type of space being demanded. The move toward larger, more technologically advanced facilities is a huge opportunity for developers as a significant amount of the space currently vacant is not logistically viable for most e-commerce companies.

With the competition increasing to get in the game and secure the best sites close to population centers, lease rates, land pricing and development costs continue to increase. This presents a major advantage to owners and developers of land adjacent to urban areas that is suitable for development. And it offers unique opportunities to owners of older buildings, as reported in the Wall Street Journal on November 20, 2016—*In New Jersey and Long Island, Developers Eye Office-to-Warehouse Conversions*—the owner of a top-end suburban office building that was vacant made the decision to demolish the building and reposition it into a retail distribution site.

WAREHOUSE DEMAND AND DEVELOPMENT

During most of this cycle developers have been slow in adding to the supply of space, averaging less than half of the long-term average even though absorption has run 20 percent higher during the period. Developers are meeting the demand for smaller warehouse space (less than 250,000 square feet) with projects located close in to the urban core, which according to CBR Research represents approximately one-third of all the buildings under construction.

At the same time, NREI reported at the end of 2016 that development of warehouses over 300,000 square feet during the previous 12 months generated 60 million square feet in 100 buildings and that an additional 20 million square feet was being completed every quarter while maintaining a vacancy rate of 7.4 percent and with absorption outpacing new construction for that size building.

DATA CENTERS

Another sector of the industry that is expanding as a result of e-commerce driving online traffic is the development of data centers. These buildings serve as computer centers that support and back up all of the information that has become critical to business in this age of Big Data. According to Fidelity Financial in their *2017 Real Estate Outlook*, more

“Commercial buildings are changing from the inside out as office work spaces evolve into more social work spaces.”

companies are increasingly relying on data centers to keep their operations up and running. But they are expensive to build in order to ensure that servers remain online. This entails the latest technology infrastructure and climate considerations, physical and online security, temperature controls, backup power sources, extensive optical fiber, raised floors and other connectivity measures. Fidelity pointed out a number of reasons why this asset class has been the focus of a number of REITs that have taken a position in owning and operating data centers in anticipation of strong growth in 2017 and beyond.

- The development of data centers is being driven by the explosion of mobile communications, social networking, streaming video and cloud computing.
- Large e-commerce businesses—online retailers, social networking firms, financial services companies and cloud providers—are among the major tenants for third-party data centers.
- Data centers appeal to smaller businesses that can't afford to build their own in-house infrastructure.
- Because of the design and development cost, most tenants are likely to renew their lease agreements with third-party data centers rather than move their servers or develop their own.
- Data centers are less sensitive to volatility in the economy as the need for data services will only grow and become more critical in the future.

WATCH LIST

The following areas should also be monitored as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- Demand for build-to-suit, spec and repurposed warehouses for

local and regional distribution centers will grow as e-commerce expands.

- Solid market fundamentals are expected to continue to support future growth and investment opportunities.
- Growth in the data center sector is expected to continue.
- Redevelopment of older, close in warehouses to meet the growing demand for same day delivery is anticipated.

TAKEAWAY

Consumers can touch the retailer at many points along the sales process: from researching to experiencing it in-store to asking friends for input before buying online. With “click and collect” demand growing (customers buy a product online and collect it at a local branch), retailers are seeking to change their supply chains. This is a very significant paradigm shift. For retail, it is now all about last-mile distribution points and next day deliveries.

Most executives agree that e-commerce is in a multi-year expansion phase that will continue to cause uncertainty in real estate markets, with a shift away from existing big box retail centers and regional warehouses to the development of destination and entertainment centers and large distribution centers located in key metropolitan areas. Frustrating for retail and a windfall for industrial.

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DEMOGRAPHICS

It's Way Bigger Than Just
Millennials vs. Retiring Boomers

6

ABSTRACT

Emerging Millennials and retiring Boomers are reshaping and transforming the way we live and work and virtually everything we touch. For commercial real estate, this shift in the demographic landscape is impacting everything from the question of urban or suburban to the size and look of office buildings and where and how people shop and get their products. As the Millennials focus on urban living in smaller units, the Boomers are beginning to think about downsizing and seniors living arrangements. In this chapter, we look at this transition and what it means for the future of the industry.

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DEMOGRAPHICS

Demographics tell us about people—where they live, how they work and what they want. And that information is more important today than ever as countries around the world are aging, with the succeeding generations often operating as change agents throughout all society. The graphic by Sparks & Honey (Figure 6, following page) reflects the five generations today with roughly 75 percent of the population falling into four age groups: Baby Boomers, Generation X, Millennials and Generation Z (Homelanders or Post Millennials).

The graphic from Pew Research (Figure 5, left) reflects the demographic transition of the overall population that has taken place from 1995 to 2015 with the torch having effectively been passed from the Baby Boomers to the Millennials. Like their parent's generation Millennials are changing the workplace and economic consumption patterns. These are the two cohorts that will have the greatest influence over the next decade.

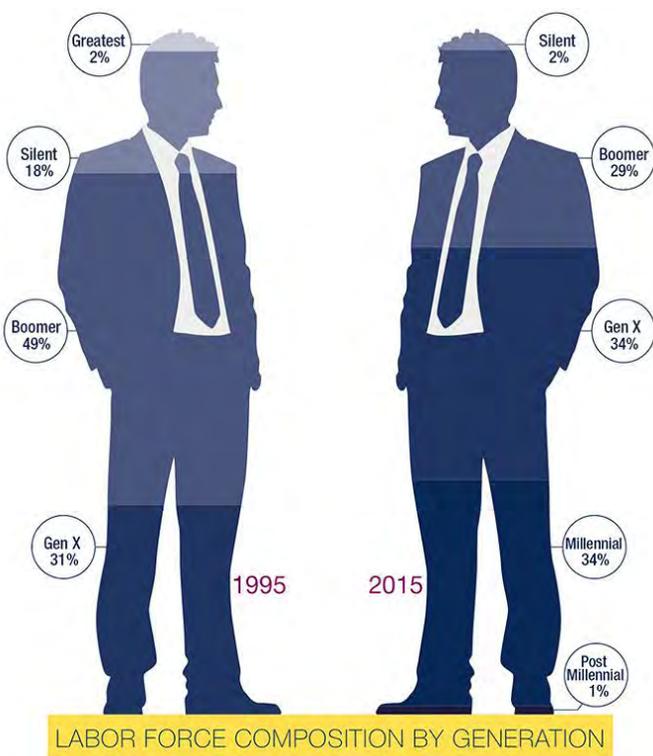


Figure 5. Study by Pew Research Center 1995-2015 on labor force composition by generation.

A Demographic Shift

There are numerous trends tied to both the domestic and global economies that are impacting commercial

real estate, but none may have a more significant and far reaching impact than the demographic shift that is currently underway. The sheer numbers of retiring Baby Boomers and the rising Millennials present the industry with challenges that are only just now emerging as the transition is entering into its most important decade. Meeting the changing needs of these generations is staggering when you consider the numbers involved.

As we step into 2017, the Baby Boomers (74.9 million) have now been surpassed in numbers by the Millennials (75.4 million). Together they comprise over 47 percent of the US population, or more telling they represent over 62 percent of the country's adult population. The Boomers have defined and charted life in the US in every decade since their arrival in 1946, and they are going to remain a huge influence in the years ahead as a result of the wealth they have attained. And while it may be safe to say that the generations on either side of Gen X have defined the market's view, this "transition" generation is setting the tone for change in business. The Millennials impact goes well beyond just the economy - they are driving shifts in living and working environments that are fueling dramatic changes across the entire real estate landscape.

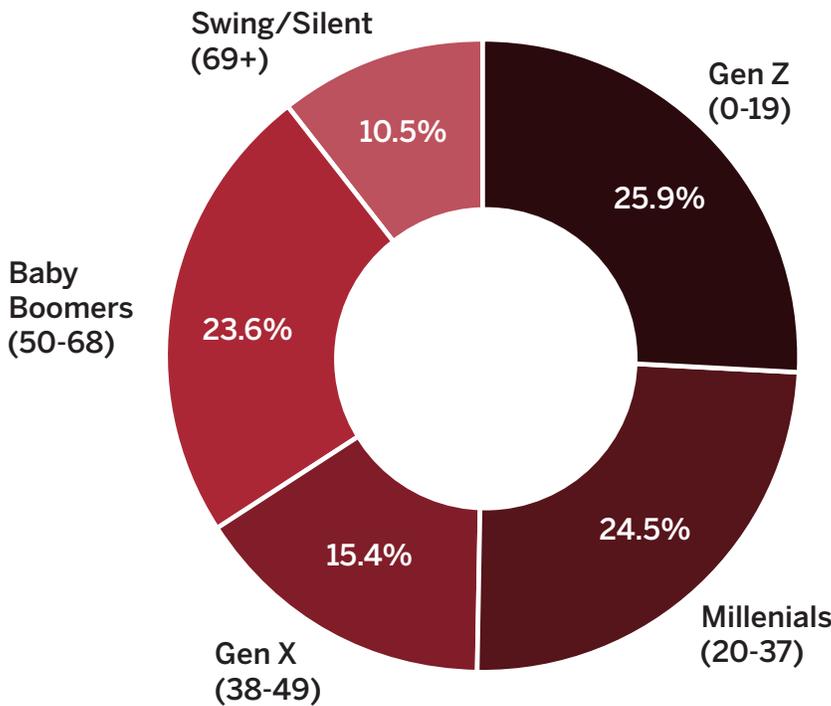


Figure 6. Generational Population Breakdown for Americans by age. Source: Sparks & Honey.

In this chapter, we highlight several key issues the industry must track and monitor that are the result of and are impacted by these two demographics. First, we look at them individually and then the impact they are having on the industry and what that portends for the future.

THE PLAYERS

Gen X

There are many that have written off Gen X, the generation that suffered the most during the great recession with many of them being left deeply

in debt, out of work and with their homes in foreclosure. But today they find themselves in a much better position as the economy continues to gain momentum and the job market improves. As the bridge between the Boomers and the Millennials, this group is in the midst of its prime working years and as the Boomers retire and the Millennials begin entering the industry, experienced Gen X'rs are in a position to fill the gap. At the present time, their talent is in relative short supply and demand is increasing as the knowledge and skills gap between the preceding and following generations is about to get wider.

“I broke the code. Millennials are simply young baby boomers with a computer.”

But, while all the talk is about the Millennials being the digital generation, it must be remembered that it was Generation X that led the world into the world of technology era and their experience and skill position them as part of the answer to filling the gap.

Baby Boomers

Commercial real estate is on the verge of the largest transfer of real property assets tied to the middle market (under \$50 million) that are generally owned by Baby Boomers who are currently between 51 and 70 years old. As reported by JCR Capital, this “Graying of America” will affect more than half of the commercial real estate in the US valued at \$7.6 trillion. JCR projects that “over the next 10 to 15 years almost every asset in the middle market will change ownership as the result of life events such as death, retirement, health issues, etc. Even if these assets are transferred within the family, new ownership will be compelled to manage, sell, improve, etc. this real estate.” Approximately 40 percent of the nation’s farmland is likely to change hands in the next two decades, land whose valuation has reached record highs.

According to the US Census, every day between now and 2030, 10,000 Boomers will turn 65, and as they move into retirement their desires are beginning to look a lot like those of the Millennials. The majority of their lives spent raising a family have involved living in the suburbs, commuting to work and driving their children from one activity to another. What many of them now want is to downsize, move to the urban core and live the walkable lifestyle just like the Millennials. The industry, however, has been more focused on the emergence of the Millennials and in the process, has not fully considered the impact that Boomers are having on the industry that, according to Yardi Matrix, will be led by growth in apartment demand. Between 2007 and 2013 Boomers filled up 1.3

million apartments compared to just 459,000 by Millennials.

According to an article in Property Management Insider—*Why the Apartment Industry Should Take Baby Boomers Seriously*—29 percent of Boomers are renters and that number is growing. The Great Recession was one of the reasons, but Boomers are downsizing and in some cases escaping situations where children return home to live. This demographic has accounted for more than half of US rental growth the past 10 years and the number of 65-plus renters is expected to double by 2030. An important requirement in that move is choosing to rent in urban locations that are close to shopping, restaurants, culture, transit and employment as many are still working.

Both of these generations are looking for well-located apartments in cities that provide a diverse community, convenience to daily necessities and high-end amenities. They are interested in locations that are walkable and close to shopping, restaurants, entertainment and transportation in the urban core. The result has been increased competition for a limited supply of housing in those areas, which has pushed up rents, placing increased pressure on the Millennials. Boomers, however, have been less impacted as they have accumulated significant wealth during their lifetimes and are expected to inherit as much as \$15 trillion by 2022. In addition, they have the fewest financial obligations of any age group and are predominately empty nesters. The fact that they are aging and retiring will have a huge impact on their lifestyle needs going forward. Implications for commercial real estate that are not yet issues of concern for the Millennials: seniors housing and healthcare.

Millennials

Culturally and ethnically more diverse, the entrepreneurial Millennials are bringing a different lifestyle and approach to the workplace. They want support and mentorship, flexibility in work hours and where they work, a clear path for advancement and high earnings potential. They comprise a demographic that is the first to fully embrace the Internet, e-commerce and mobile, with 87 percent of them using multiple digital devices every day.

The Bureau of Labor Statistics predicts that by 2030 Millennials will make up 75 percent of the workforce. Therefore, one of the most pressing challenges for commercial real estate is to determine and plan for where they will be living and working. Historically they have been moving to affordable cities that offer plenty of high-tech jobs and have a vibrant downtown lifestyle. They want to live near their jobs, restaurants, and nightlife and have easy access to mass transportation. But there are those like the NAHB that believe as they move into marriage and begin raising families, two-thirds of them will eventually leave the urban core

and move to the suburbs near good schools. Those suburbs, however, will not be the same ones in which they grew up.

IMPACT ON COMMERCIAL REAL ESTATE

The Urban/Suburban Challenge

This demographic transition is creating an enormous demand in the housing and office sectors, which has led to increased new construction and redevelopment. This has especially affected urban infill as the competition for urban core real estate has become extremely competitive. As a result, it has opened the door for the development of blighted or underused space for which many cities are offering development incentives in order to revitalize neglected urban areas, improve the local business environment and raise tax revenue. But as much as Millennials prefer urban living, rising rents in the core areas are forcing many of them to consider moving to mid-sized cities as well as the suburbs. But those suburbs will look strikingly like the urban environments they are leaving.

“Do not disregard the 65 million strong Gen X that has been defined as the middle child. This transition generation is setting the tone for change in business.”

According to ULI—*Emerging Trends 2016*—the new suburbs will be walkable communities that are connected to cities by high speed or light rail to facilitate access to center-city job growth and act as employment nodes. These areas with urban-style amenities promise to be excellent opportunities for investors. But amenities are not the only reason for a move to the suburbs.

The drive to suburbanization is ultimately about jobs, marriage and families. Although it is true that Millennials are putting off marriage and family until later in life, that does not mean they are putting it off indefinitely. Looking at where they are living, only about 30 percent of them actually live in urban areas. ULI estimates that 75 percent of Millennials still plan to get married, and migration statistics already indicate that more of them are actually moving out of the cities and into the suburbs than vice versa. This transition to the new urban-suburban areas also includes the younger members of Gen X who fall into the same lifestyle patterns as the Millennials.

COWORKING

The coworking industry is maturing, as seen in Deskmag's *2016 Global Coworking Forecast's* statistics. It is not just for start-ups, it is growing vertical in the office leasing industry. WeWork, the dominator in the space, has created a \$20 billion in value in just eight years, and recently SoftBank invested \$4 billion to expedite continued growth. However, there is concern in the industry that co-working will fail in a down economic swing, as entrepreneurs and small businesses retreat back to their home office models. The question becomes, does the flexibility that co-working spaces offer allow the concept to continue to thrive even if the economy takes a turn? Arguments can be made that this is a trend that is here to stay and will continue to be embraced by Millennials and even corporate businesses. They have reimagined their leasing options and are focused more on short-term solutions that incorporate the coworking facilities that attract and retain talent, while at the same time reducing overhead and creating collaboration/networking environments, even with other companies.

In Europe, a successful London model—StartUp Home—combines co-working space with apartments to create buildings where people both live and work onsite. The idea is to make it cheaper for talent to live and work in the city where tenants have access to business accelerator programs, mentors, venture capital, etc. This is a model that could emerge in the US as the demand for urban space continues to grow.

There are many Millennials that will live their entire adult lives in cities, but developers and investors are starting to account for the fact that a growing percentage of them will settle down in the suburbs and are planning for that eventuality. John Burns Consulting expects nearly 80 percent of residential growth to occur in suburban communities over the next 10 years. But whether it is in the urban core or the new suburbs, commercial real estate is facing the fact that it must accommodate the changes these two demographics are demanding.

Office Buildings in Transition

The question on the minds of many in the industry is whether or not suburban offices can make a comeback. Many are certain they will, but only if they incorporate the flexibility and collaborative capabilities that Millennials desire in their work environment.

Most leaders agree that the number one desire of Millennials in their work environment is community and collaboration, and that translates into mixed-use environments that present commercial real estate with a challenge for the design and location of office space. They no longer view the office as a place dedicated to an individual's work, it is a meeting place for a varied group of people to gather, share and collaborate in an open communication and brainstorming environment. They have no need for telephones or desktop computers; they want technology, digital connections and flexibility. The speed of communication and access to information they surround themselves with is at odds with the traditional corporate office layout. As a result, office sizes are shrinking

as companies move away from individual offices and cubicles in favor of a more collaborative, social setting.

Millennials' preferences for how and where they work have also birthed the "shared workspace" or "co-working" concept that is impacting both the design and retrofitting of office buildings. Companies like WeWork—4.5 million square feet worldwide; 60-70 different locations; 45,000 members—are leasing large amounts of space and are subleasing that space on an individual basis; month-to-month, weekly, daily, even hourly. This is a trend that will grow in the future as demand for dynamically configured (flexible) space increases. Owners have the option to develop and manage their own co-working space but this may be difficult as companies like WeWork offer the tenants the ability to utilize WeWork facilities in other locations worldwide. Developers will need to consider that as competition grows for shared workspace, additional benefits like gyms, gourmet coffee access and lounge space will become part of the competitive mix.

New buildings have been designed with varied layouts by floor in order to provide for the most flexibility. With the limited availability of urban land to develop new office buildings, in order to meet the demand for office space developers are gutting old offices with high vacancy rates and redesigning them with flexible areas offering an open working environment much like offices that are popular in the technology industry. Some older office buildings that cannot be retrofitted with new floor layouts and technology are being converted to apartments or hotels where younger workers can live.

This office concept will follow Millennials to the suburbs if that's where the jobs are. If developers copy the urban example of creative, modern office spaces they will be successful there as well, as long as they bring the downtown urban amenities with them.

MULTIFAMILY OUTPERFORMS

According to CoStar, the multifamily market continues to outperform other commercial property sectors and has the lowest vacancy rate of all the major property types at 5.2 percent (as of the end of third quarter 2016.) In addition, average rental rates experienced a 3.9 percent increase from 2015.

Renter households are poised to grow in every generational cohort due to a range of economic and demographic factors states Freddie Mac. Positive job growth and a stable economy should help more Millennials form households and enter the market. In addition, the combination of sluggish income growth, rising home prices and higher mortgage rates will likely delay homebuying by younger generations and prolong their tenure as renters. Finally, a significant fraction of the nation's 67 million aging Baby Boomers is poised to downsize into more easily managed rental units.

Multifamily Morphs

The Millennial preference to live in mixed-use environments near work is contributing to high rents in urban locations, which is leading to increased apartment development that will further accelerate population growth in central business districts. It is also changing apartment design as developers and owners alter plans to incorporate smaller units—300 to 400 square foot micro apartments—as well as promoting apartment sharing in an effort to address affordability. But with shrinking apartment size comes the need for additional amenities that tenants are beginning to view as entitlements; for example, Wi-Fi throughout the property, larger social common areas with Internet-ready big-screen TVs, coffee bars, workout areas, etc.

Many Millennials prefer apartment dwelling but Boomers have been active in both the apartment and the condominium markets. Both desire to live in loft and high-rise buildings and are competing for the same pool of rental housing and supply that is still trying to catch up with demand in most markets. For Millennials, this competition has brought about affordability issues leading them to shift their attention to similar areas in smaller markets with lower rents. Developers have followed suit and are increasing their focus on the inner suburbs and second-tier cities when micro units no longer meet their needs.

With rents increasing and multifamily starts being met by strong demand, the challenge for developers and investors is to establish how long the cycle will last. It is important to determine whether Millennials will continue to rent in urban cores or make a decision to move to the suburbs for more space, better schools and lower crime. And that brings up the question of whether they will continue to rent or become homebuyers. The *2015 NAR Profile of Home Buyers and Sellers* suggests that the time has not yet arrived by reporting that the annual share of first-time buyers was at its lowest level in nearly three decades. There are many in the industry, however, that believe the escalating rents in the urban centers will force Millennials to make that switch sooner rather than later, reflecting NAHB's belief that two-thirds of them will ultimately opt for home ownership.

The Transformation of Retail and Industrial

Another sector that is receiving a great deal of attention as a result of the changing demographics is retail. Retailers are becoming a part of urban-core expansion and are actively positioning themselves for infill locations—e.g. Home Depot, Whole Foods, Target, etc. The demand has also grown for retail developments that offer entertainment and socialization opportunities like group dining experiences. To meet this desire developers are focusing on mixed-use developments that offer

shopping coupled with other social attractions. And in concert with the anticipated move of many Millennials to the suburbs, developers and investors are keeping an eye on suburban downtowns that are beginning to look like urban centers.

For Millennials, this means retail with “show rooming,” providing the ability to view products in-store and search for them online at a later time. For Boomers, it means locating their preferred stores closer to parking and the inclusion of what the industry refers to as “medtail” centers, providing medical offices in addition to retail shops in order to give patients and their families something to do while they wait. Developers are also locating medical offices in otherwise hard to lease locations in the center. And they are repurposing buildings that were previously occu-

“We need to find better alternatives than commission based compensation. It’s time for a whole new mindset and generation to redesign the industry.”

piated by big box retailers into experiential retail, such as gyms and spas to complement tenant mixes that showcase food and entertainment. And this is all in a “Main Street” design that conforms to the changing lifestyles that will continue to alter the face of the industry for years to come. And one of the key elements impacting retail is e-commerce (see the E-Commerce chapter for more detail).

Developers are meeting this expanding demand with new spec and build-to-suit industrial facilities as well as repurposing existing facilities located near transportation hubs. Crowdfunding platform, EarlyShares, expects that “as e-commerce grows to an expected \$370 billion volume by 2017, more fulfillment centers, standard warehouses and new multi-purpose storage centers will be built to meet increasing needs in supply chain management.” JLL further underlined this growing impact, reporting that “7 of 10 retailers analyzing and defining their omnichannel strategy are modeling on Millennials who utilize technology to research future purchases before viewing in-store. Then after viewing they go home and buy online, increasing the demand for distribution facilities to meet last mile demand.”

The line between retail and industrial is becoming blurred as retailers and manufacturers struggle to meet these new challenges. The resulting look and feel of both retail and industrial going forward is changing as developers and investors determine what centers and warehouses should look like, how large they should be and where they should be located to optimize distribution and fulfillment, all of which is driven by the desire for an integrated, seamless shopping experience, whether it is online or in the store.

Senior Momentum

The Baby Boomers have not finished exerting their influence on commercial real estate, and they are the ones that will be pushing one of the biggest construction booms: seniors housing. According to American Senior Housing Association, seniors housing now comprises over 50,000 senior living communities. CBRE reports that there are an additional 50,070 units under construction in 99 markets, of which 80 percent were scheduled to come online in 2016. Furthermore, the need for additional facilities of four major types will grow substantially in the future:

- **Independent Living Facilities**—for those who do not need assistance with daily living activities.
- **Assisted Living**—for those who are no longer capable of performing the activities associated with daily living.
- **Memory Care**—for those who have experienced significant memory loss.
- **Nursing Care**—long-term care facilities offering the highest level of services.

There are also Continuing Care Retirement Communities (CCRCs or Life Plan Communities), which provide broad-based, long-term services from independent living through a full-service nursing home.

Seniors housing has become a desirable asset for the investment community with its guaranteed demand. At the present time publicly traded REITs that specialize in health care and seniors housing are substantial investors in the market and they tend to buy and hold for the long term. There are some opportunity funds in the space that buy and turnaround properties within three to five years, but roughly 60 percent of seniors housing buyers are from private capital sources, including private REITs, pension funds and HNWI. According to NAIOP the return on investment for seniors housing has outperformed all other classes of commercial real estate over the past seven years, including the years following in the Great Recession.

An additional benefit of seniors' projects is that, unlike other classes of commercial real estate, they can be a compelling investment in primary, secondary and even tertiary markets as the investment is more about the underlying market demand than the location. Considering these markets, CBRE estimates that, due to the coming Boomer impact, approximately 69,000 units will be needed per year to meet peak demand in 2043, compared to 39,000 today. And with the wealth that Boomers have accumulated it is anticipated that the demand for CCRCs will be the greatest in order to provide the widest range of services in one location. A significant element accompanying the high return on investment, however, is the increased risk associated with owning a seniors facility.

Despite the upside there is the exposure to operational risk that concerns investors. Seniors housing is an operationally intensive business and investors that have proven track records in the space agree that the most important factor for success is an “operator” with the required resources and experience. However, the difficulty is that different operators have strength in different niches along with the fact that there are a limited number of good operators in the space. There are also concerns that as the sector is rapidly growing there are a number of inexperienced operators getting into the business.

However, in spite of the added risk, seniors housing has become increasingly attractive to overseas investors. A portion of that investment capital is seeking to enter into joint venture opportunities with some of the biggest seniors housing real estate holders. And their focus in 2017, according to Senior Housing News, will be centered on Assisted Living and Independent Living. But, at the end of the day, no matter how careful investors are in acquisition and development, the key to success going forward comes down to having great operators and a great operation.

One Man's Treasures

Baby Boomers are approaching retirement age but many of them plan to continue working and, in the process, add to the \$2 trillion of wealth they have accumulated in their homes, long-term investments and through inheritance. Along the way, they have also accumulated a vast amount of personal property they have to deal with as they begin to downsize. This has already generated new demand for self-storage, which is set to expand significantly in the years ahead as nearly 1 in every 10 homes currently uses it in some form.

According to *Inside Self-Storage*, self-storage occupancy rose during 2016, hovering in the low 90 percent range at the beginning of 2017. *IBIS World* projects that sector revenue will surpass \$30 billion in 2018 and reach \$33 billion by 2020. With fundamentals remaining strong, the industry expects REITs to expand their self-storage portfolios in light of not only Boomer downsizing but also because of the continued pace of multifamily rental development. Coupled with smaller living spaces this is driving demand for new construction, especially in the urban centers, which has resulted in a growing concern that the industry is not prepared to meet the rising demand.

Some in the industry anticipate that 2017 will see slower expansion due to higher interest rates and adequate supply. Self-storage specialist HFF reports that there is still about \$1 billion in new construction already permitted across the country as of January 2017. But Integra Realty Resources believes that slowing will not continue as the pace of new construction will not satisfy the current growth patterns until 2022. Boomers are being more selective in where they store their belongings

which will, according to REI Club, result in more sophisticated and higher technology facilities offering more user-friendly layouts, larger spaces, flexible unit mixes, kiosks, high security and more climate control units. They predict that Boomers will also be “requiring facilities to have a certain look and feel that blend in with the surrounding businesses. Nicer fencing, split block security walls, paved drives, certain architectural features and an attractive landscape package will be mandatory and made part of the architectural permit prior to construction, and strictly monitored for compliance.” This will force owners of older facilities to make necessary upgrades to their facilities in order to remain competitive. And as investors compete for prime locations in high traffic urban locations, municipalities will begin to require that a retail component be incorporated in order to increase their revenue from sales tax.

Overall, the outlook for the self-storage sector appears to be strong in light of a healthy multifamily sector and Boomers’ downsizing. *IBIS World* expects the industry to reap the benefits of an improving economy along with an increase in consumer confidence and spending. They also expect rental rates and profit margins to dip slightly by 2020 as the industry absorbs more new facilities and competition increases. But in the interim, with increasing demand, strong fundamentals and plenty of investor capital pursuing self-storage properties, the industry anticipates a boost in new development resulting in a total of 60,152 units by 2020.

TOP COLLEGES AND UNIVERSITIES FOR COMMERCIAL REAL ESTATE

According to Best Colleges, the top 10 colleges in the country for 2017 ranked by real estate programs are:

1. University of Pennsylvania (The Wharton School of Business)
2. University of Wisconsin-Madison (Department of Real Estate and Urban Land Economics)
3. University of Georgia (Terry College of Business)
4. University of California-Berkeley (The HASS School of Business)
5. New York University (The Schack Institute of Real Estate)
6. University of Connecticut (The Center for Real Estate and Urban Economic Studies; School of Business)
7. University Florida (The Department of Finance, Insurance and Real Estate; College of Business Administration)
8. University of Illinois-Urbana (The Department of Finance; College of Business)
9. University of Southern California (School of Policy, Planning and Development)
10. University of Texas-Austin (McCombs School of Business)

DEMOGRAPHICS AND THE FUTURE OF COMMERCIAL REAL ESTATE

According to NAIOP, it is estimated that by 2025 the industry will be faced with a shortage of 15,000 to 25,000 qualified leaders without a significant number of younger leaders to replace them.

Leadership Shortage

As the Boomers begin approaching the point of retiring and prepare to pass on the leadership of the industry there is a growing question as to whom they will pass it to as most leaders acknowledged that there is a major talent shortage of potential Millennial leaders to follow Gen X as the next in line.

Millennials, like many other generations, look for career opportunities that provide a stable income and therefore do not see commission based compensation as a desirable career choice. According to leaders interviewed, very little has been done to seriously recruit new people into the commercial real estate industry and only a few colleges and universities offer commercial real estate programs (see table).

The search for mid-level talent by industries across the entire business spectrum has created a highly competitive market, making it difficult to attract qualified candidates to the industry, especially in the areas of technology, Big Data and analytics. At the brokerage level, the industry is faced with the challenge of attracting new talent, which is strapped with student debt and is salary-focused, into a commission-driven industry without adjusting its compensation strategies.

In response, NAIOP reports that nearly 60 percent of public and 38 percent of private real estate firms that were surveyed in their *2015 NAIOP Commercial Real Estate Compensation Survey* are actively developing formal talent management plans. There were a number of key responses in the survey that highlight the areas being addressed to enhance recruitment, training and retention:

- Making improvements to training and leadership development.
- Addressing recruitment techniques, core competency hiring practices, a robust onboarding process, mentorship, a comprehensive training program, career development, performance scorecards, employee recognition, updated compensation practices and year-round team-building activities.
- Creating succession plans for the company's CEO/president and all C-suite positions.

- Identifying, perfecting, training and mentoring high-potential employees.
- Increasing the use of Social Media, online resources and pre-graduation recruiting.
- Adopting or changing work/life balance policies, social responsibility policies, environmental practices and new communication vehicles to attract and retain Millennials; incorporating their preference for an open and flexible work culture.

Tomorrow Belongs to the Homelanders

And the challenge just gets more complicated. While the Millennials are ushering in a major paradigm shift to the entire economy and more importantly commercial real estate, there is another generation that is just now making its move into adulthood—the 77.9 million strong Generation Z. These are the “Homelanders”—aka, Post-Millennials, iGeneration, Founders or Plurals—who were born after 1995 and are growing up post 9-11, in a world where terrorism and a sluggish economy are all they have known. For them it’s not laptops, it’s touch screens and they don’t remember when phones were not smart. They are technology-reliant and have grown up immersed in digital and Social Media with a mobile phone in their hand at all times. They will be entering the workforce as highly-educated multi-taskers.

The first of Gen Z are going to be reaching their 18th birthdays in 2017 and, according to the National Association of REALTORS®, by 2020 this

Figure 7. Top Barriers to entry from CREW’s 2015 Benchmark Study Report: Women in Commercial Real Estate.



demographic will represent 40 percent of consumers and 25 percent of the US population. So, demographic change will continue to be a major factor in retail and office and workplace design for many decades to come. They will be looking for flawless technology infrastructure and plenty of opportunity to interact and team up with colleagues. Open office design, schedule flexibility and workplace amenities will continue to be important and the changes occurring in commercial real estate as a result of technology and Big Data will attract this generation.

THE GENDER GAP

Since its inception, commercial real estate has been a white male dominated industry, and it continues to be that way. The increase of the number of women entering into the industry from 2005 to 2010 has even dropped back to 2005 levels. But there are continued efforts to increase the participation of women by the Commercial Real Estate Women Network (CREW), the industry's premier business networking group dedicated to advancing the achievements of women in commercial real estate. CREW has around 10,000 members operating in 70 major markets across North America and represents women in all disciplines including Asset-Property-Facilities Management, Brokerage-Sales-Leasing, Development-Development Services, and Financial-Professional Services.

A Benchmark Study

CREW's *2015 Benchmark Study Report: Women in Commercial Real Estate* provides an in-depth analysis of the ascendancy of women in the industry. The following are several key statistics that speak to the professional growth of CREW members.

- Women, as well as men, continue to prefer an annual base salary; commission compensation for both in brokerage and leasing has not changed since 2010.
- 60 percent reported incomes of \$100,000 or more, with a median total income in 2015 of \$115,000 (\$150,000 for men).
- The average member has 14 years of experience; 22 percent have more than 25 years.
- The percentage of women younger than 40 and with less than five years' experience has decreased 10 percent since 2010.
- 76 percent are presidents, CEOs, partners or senior managers of their companies.
- Women's satisfaction with their career success equaled men for the first time in 2015.
- Women were most likely to hold C-Suite or SVP positions in

Development and Finance.

- In 2015, for the first time, the percentage of women with direct reports was on par with men.

However, with all the progress women in commercial real estate are still encountering many of the same barriers to success shown in the chart comparing 2010 with 2015 (see Figure 7).

Actions That Need to be Taken

Women at all levels receive lower pay, fewer opportunities for upward mobility and less access to leadership roles than their male counterparts. In addressing this gender gap across pay and position, CREW identified several key actions that need to be taken:

- Women should be encouraged to negotiate assertively for compensation commensurate to their skills and value.
- Much needs to be done to improve awareness of the disparity in compensation between genders.
- Organizations and companies should provide resources that allow women to assess the risk of performance-based compensation structures.
- Companies should provide clear career paths for people in performance-based compensation positions.

In answer to these challenges, CREW has developed four key initiatives for its members to influence and advance the success of the industry by focusing on:

- **Business Development**—Facilitating business networking and deal making among its multi-disciplinary membership through three Leadership Summits each year along with its CREW Network Convention & Marketplace.
- **Industry Research**—CREW launched its industry research initiative in 2004 due to the lack of available statistical information about women in commercial real estate by benchmarking compensation, advancement, success and satisfaction levels of both men and women.
- **Leadership Development**—CREW is dedicated to building effective leaders as the key to advancement in the industry through high-level leadership development training and opportunities to serve on national boards and lead national committees.
- **Career Outreach**—CREW focuses on opening up awareness of rewarding and lucrative careers in commercial real estate for women through education programs and mentoring.

A Movement Underway

CREW has also instituted its Certificate in Leadership program, which offers three leadership classes as well as three CREW Network Leadership Summits. This yearlong program features specialized

leadership development, industry training and self-directed mentorship. The program's stated goal is to address the reluctance of women to take risks and negotiate salaries as well as helping them to develop specific career plans that will assist them in moving across company functions or seek promotions that pivot into broader leadership positions.

This chart (Figure 8) from the report highlights the factors that have a significant impact on the growth and development of women in the industry; what they find as the most important and satisfying elements of their career as compared to men. While the 2015 benchmark survey indicates that women have achieved equal or close-to-equal standing as men in many aspects, there is room for progress:

- The largest inequalities observed are in the income gap and the low numbers of women in C-Suite positions.
- There is a need to take action at the corporate management level to address the persistent bias against female advancement, which results in women being less likely to aspire to C-Suite positions.
- Companies and decision-makers will benefit from proactively acknowledging, supporting, promoting, recognizing and rewarding women's full potential.
- Industry leaders should make mentoring and sponsorship of women a priority.
- Companies and organizations must be honest about

Figure 8. Factors in Satisfaction from CREW's 2015 Benchmark Study Report: Women in Commercial Real Estate.



unconscious bias in their employee hiring, promotion, assignment of challenging projects, and inclusion in high-profile client relationship development.

- Human resource leaders should conduct employee pay equity tests regularly to identify disparities in compensation between genders.

WATCH LIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- The impact of Millennials will be felt across all sectors, lifestyle, and work preferences as they challenge the industry.
- Boomer wealth and their advancing age will drive seniors housing and medical office buildings to the forefront.
- Millennial lifestyle changes in the next decade will revitalize the suburbs with new urban style development and amenities.
- Office building development at all levels has begun the transition to adapt to the Millennial work style and provide the required amenities, which will afford the opportunity to redevelop outdated buildings in close-in environments.
- Developers, especially in CBDs, are adapting multifamily designs to meet the demand for smaller sized units with added amenities.
- The development and utilization of self-storage in all communities will expand significantly in the next decade as multifamily projects continue to grow along with Boomer downsizing.
- Women in commercial real estate still face a large number of barriers to advancement and equality.

TAKEAWAY

In this chapter, we have explored a number of the key issues involved in the industry's adaptation to generational dynamics. By way of summary, the following are a number of key takeaways from a presentation made by real estate consultant Christopher Lee at NAIOP's September 2016 Commercial Real Estate Conference—*Megashifts, Real Estate Cycles & Bankable Predictions... Taking CRE Into the Future*. They highlight the challenges that commercial real estate faces as the industry's leaders begin to deal with a multi-generational workforce.

- **Training**—Between 60 to 70 percent of training for real estate professionals will be online or led remotely—training will be

more “on-demand.”

- **Technology**—By 2025, 10 million or more jobs will be lost to robotics—do not be surprised to see many office buildings less than 250,000 square feet in size being managed remotely.
- **Women in Commercial Real Estate**—Women could compose nearly 40 percent of the C-Suite positions within real estate firms.
- **Retirement**—The real estate industry will be faced with a potential shortage of 15,000 to 25,000 “qualified” workers per year through 2025.

Millennials are one of the primary drivers of change and they will become an even greater influence as they ultimately lead commercial real estate into a new world.

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SUSTAINABILITY

Return on Investment Slows
Down 'Feel Good and Do Good'

7

ABSTRACT

Since the introduction of LEED into commercial real estate in 2000, local, state and federal regulations have emerged to address the issue of sustainability. Entering into 2017, commercial real estate is faced with a number of questions concerning its future with respect to increasing regulation designed to address the conservation of energy and water, the emergence of smart buildings and the role conservation will play in the future of asset valuation. This chapter addresses the impact these issues will have on the industry and its key players.

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A SUSTAINABLE FUTURE

In 2015, the US Department of Energy reported that commercial buildings accounted for 18.7 percent of energy usage, 40 percent of carbon dioxide emissions and 88 percent of potable water consumption in the country. At the same time, it was estimated that commercial real estate profits and property valuations would be significantly improved by the adoption of green building standards that would result in the consumption of up to 50 percent less energy, use 40 percent less water and emit up to 39 percent less carbon dioxide.

But while sustainability in commercial real estate has been acknowledged by the industry as a significant factor affecting both short-term investment profitability and long-term asset valuation, the response to the issue has generally been that if it isn't revenue neutral it is just an expensive certification to attract tenants while satisfying the new regulations associated with green certification. And the driving factor is generally the view that shareholder satisfaction is more important than being identified as a green owner.

For that reason, up to this point, many of the industry leaders that we interviewed see it as a cost without a return and therefore they rank sustainability lower compared with job growth, land costs and capital

availability. However, that does not mean that the industry has turned its back on sustainability. As reported by the Urban Land Institute—*Greenprint Performance Report: Volume 7 for 2014-2015*—there are a number of areas in which the industry has made progress in reducing energy consumption, carbon emissions, water usage and waste generation.

There are developers, investors and owners across the broad spectrum of commercial real estate that are exploring the benefits to be gained by entrenching sustainability into the full investment process. Sustainability is becoming a more important factor along with property fundamentals like rental growth, yield, occupancy costs and asset valuation. In this chapter we examine this issue, the progress that has been made so far and the challenges sustainability faces going forward.

WHERE COMMERCIAL REAL ESTATE IS TODAY

Although commercial real estate has begun to implement sustainability, the effort has been narrow and limited to applying green building rating tools to achieve certifications in energy conservation from organizations such as Leadership in Energy and Environmental Design (LEED), Green Globes and Energy Star. The LEED and Green Globes systems allow builders to choose the system that best suits their needs and the results provide owners and investors with basic information concerning building energy efficiency. Energy Star, on the other hand, is more of a marketing program.

Green Certifications

LEED and the Green Globes systems are major environmental assessment methodologies that score buildings and award a resulting ranking. These rating systems consist of a large set of questions relating to water efficiency, energy usage, construction materials, indoor air quality and the building site that are answered by the builder. But as the builder and owner control the input, the results are subject to manipulation and optimization.

LEED was developed in 2000 and is maintained by the US Green Building Council. It is a certification program focused primarily on new commercial-building projects. The rating system has different credit categories from which project teams can obtain points for certification: integrative process, location and transportation, sustainable sites, water

efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and regional priority.

It is more popular in the US than Green Globes but is more expensive when it comes to the required consulting fees. Many federal agencies and state and local governments require or reward LEED certification for new building projects. As developers have seen the value of demonstrating their ability to complete environmentally friendly buildings, LEED certification is becoming more common in new development.

Green Globes was developed by ECD Energy and Environmental Canada, is administered by the Green Building Initiative and has been adapted for use in the US. For developers and owners, the rating system is interactive and flexible, providing information and guidance for building design, operation and management.

“It costs too much to be green. Green will become more popular when it becomes affordable.”

Through Green Globes, builders can obtain a third-party assessment of the environmental aspects of a building and receive recognition through the rating system that applies to both new and existing buildings. The system is designed to be a self-assessment, using a project manager and design team to rate seven categories to which points are assigned: site, energy, water, emissions, project management, indoor environment and materials and resources. Once the questions are completed the system provides a report indicating those areas that could be improved. The online system then allows users to keep the assessment up-to-date and serves as a virtual consultant that provides feedback to the users.

Energy Star, unlike LEED and Green Globes, is a marketing program that was developed through the “Green Programs” at the EPA. It was initiated as a voluntary labeling program designed to identify and promote energy efficient products. Energy Star specifications differ with each item and are set by either the Environmental Protection Agency or the Department of Energy and include appliances, heating and cooling systems, electronics, lighting, etc.

The program has developed energy performance rating systems for commercial buildings and manufacturing facilities to provide a means for benchmarking the energy efficiency of specific buildings and industrial plants against the energy performance of similar facilities. For most commercial buildings, the energy information can be entered into the EPA’s free online interactive energy management tool that provides for the tracking and assessment of energy and water consumption to assist

in setting investment priorities, identifying under-performance, verifying efficiency improvements and receiving EPA recognition for superior energy performance. These performance ratings have also been incorporated into some LEED green standards for existing buildings.

But while all of these certification systems have a positive effect on attracting new tenants, lowering operating costs and increasing rental rates for newer buildings, developers continue to face the reality that retrofitting existing buildings with green features is costly and in many cases not feasible. But with new construction representing just 1.8 percent of total US commercial buildings, there is a significant opportunity to increase sustainability implementation in existing commercial buildings.

SUSTAINABILITY AND VALUE

As the movement toward sustainability in commercial real estate has gained momentum in the regulatory arena, it has become clear that investors and owners are going to be required to develop tougher and more wide-ranging approaches to sustainability as an integral part of their investment and asset management strategy. The challenge for the industry is to understand how sustainability performance relates to risk, market valuation, tenant retention, depreciation and obsolescence, all of which are directly related to optimizing total return on investment.

Progress, however, has been slow in both the institutional and private markets where the impact on asset value has been limited based on the evidence to-date, a fact that has not escaped those who are pushing for a more proactive approach to sustainability in the investment process. As reported by Deloitte and ULI, with the advancement of Responsible Property Investment (RPI) into the decision-making process, the investment focus is being directed to areas that will ultimately impact commercial real estate asset valuation as defined by the *United Nations Environment Programme Finance Initiative*. This program seeks to encourage better implementation of sustainability principles at all levels of operations in financial institutions, namely through the incorporation of environmental, social and governance factors in risk analyses - a concept it pioneered in the 1990s. The goals established for RPI include:

- Gain a competitive advantage by getting ahead of more rigid regulatory environmental and social requirements that have the potential to impact risk/adjusted returns and cost structures by requiring buildings to be improved or retrofitted to meet required environmental standards.
- Respond to tenant demands for more environmentally efficient

- buildings in order to contribute to lower tenant occupancy costs.
- Promote better collaboration and alignment of interests between all parties involved in the investment and use of commercial real estate.
 - Encourage investors to understand the implications of environmental issues on property performance and to seek risk-adjusted investment returns and ways to improve sustainability.

The move towards greater sustainability presents both opportunities and risks for the industry. The issue currently facing the industry, however, is whether addressing them is a profitable option in the short-term.

Energy

Changes in the economy and the market are elements outside the control of investors and owners. They can, however, exercise control over one expense in building operations, energy usage. Improving energy efficiency has become a strategy to help recover costs and reduce operating risk, regardless of where the industry might be in the cycle.

It is a common view in commercial real estate that the key benefit of sustainability is cost reduction. The opposite is also proving to be true as in some markets the failure to integrate sustainable building features has resulted in what has been termed a “brown discount,” implying lower rents and property valuations for energy inefficient buildings. Energy saving also remains the government’s key sustainability focus,

“Sustainability tastes great, but it is not filling.”

and at various levels it has issued building efficiency requirements as a way of managing increased energy demand and reducing carbon emissions. California’s building code—Title 24—impacts commercial real estate by establishing building codes that set the standard for highly efficient and effective building design and operations. It also mandates that all new commercial buildings will be “zero net energy” by 2030, which will require that building energy consumption be equal to or less than the energy produced by the building. The plan is to achieve this goal through smart building operations, energy-efficient equipment and energy storage systems. The key, however, is the onsite generation of renewable energy, one example being solar panels.

The initial goal for energy regulation like Title 24 is to begin moving commercial real estate beyond just complying with LEED, Green Globes and Energy Star certifications in order to accomplish much more proactive and comprehensive energy strategies. To-date, however, owners have only narrowed their efforts by primarily focusing on energy certification

initiatives. According to the New Buildings Institute, the industry has generally avoided working on achieving deep energy savings, which it says will achieve a minimum 30 percent energy reduction in existing buildings, with the potential of achieving a 50 percent reduction. One of the ways to accomplish that is through the utilization of Energy Management Systems.

Energy Management Systems

Modern energy management systems (EMS) collect and analyze thousands of data points in order to alert property managers and engineers about action items that need attention in order to reduce energy costs. These systems not only provide a window into what is currently happening, they provide options on action to be taken in the future and information on how selecting those options will help optimize energy consumption and reduce costs.

Building Management Systems—also referred to as Building Automation Systems—are expensive computer-based systems that control and monitor building mechanical and electrical equipment such as ventilation, lighting, power systems, fire systems and security systems. EMS on the other hand is a low-cost, easy-to-implement investment in operational visibility and analytics. EMS-enabled tools help building owners and operators use existing equipment more efficiently, identify high-cost energy spikes and eliminate wasted energy expenditures, like early-morning and late-night electricity usage.

“Architecture and sustainability are important, but capital and ROI even more.”

The industry is slowly moving from traditional database management systems toward EMS real-time predictive analysis along with cloud-based meter management to provide real-time energy consumption feedback. With real-time management capabilities, system data can result in action that generates instant savings.

EMS in most existing buildings provides a robust meter management feature that enables electrical meters to produce periodic utility bills and automated tenant invoicing. A focused program can provide owners with an immediate impact on net operating income and a longer-term impact on property valuation by reducing energy and utility costs. It can also provide sellers with an organized, data-backed due diligence report that highlights building performance and automates reporting and energy forecasting for potential investors.

Impact on Tenants

For owners, retaining existing tenants is a challenge in the face of the threat posed by new, more energy and water efficient buildings. Tenants are attracted to these buildings, especially those that are paying for their own consumption under a triple net lease. In response, developers are pursuing energy conservation certifications in order to show tenants they are providing them with operational cost savings over the long term.

Tenants account for over 50 percent of building energy consumption—the other 50 percent is consumed by the common areas—and they are increasingly beginning to focus on becoming more efficient about usage. As a result, owners are re-evaluating their energy strategies and, according to the World Green Building Council, are now shifting their thinking from how much will investing in energy conservation cost my business to how much will “not investing” cost my business.

One of the ways they are addressing this challenge is by including elements of sustainability up front in “green leases” that establish goals and the allocation of responsibilities between the owner and the tenant. However, clauses to deal with non-compliance on either side have yet to become standardized. Also, it is difficult to retrofit green features into existing leases or upon lease renewals, all of which has elevated the need for ongoing collaboration with tenants in order to ensure satisfaction and subsequent retention.

Impact on Investors

Investors are delving much deeper into their due diligence process in order to stay abreast of emerging and pending governmental regulation in the area of sustainability. This is especially true of new local municipal environmental requirements. In that vein investors are looking for investments that have contingency plans in place to address the need to conform to and mitigate future environmental regulation.

While focusing on generating higher returns and balancing risk, they are also embedding sustainability into their investment process. As part of that risk-analysis they are beginning to analyze the risk associated with sustainability as it relates to, among other things, understanding the risk of obsolescence when sustainability measures are not adopted, especially in light of changing tenant preferences, regulatory requirements and advancements in technology.

Investors are also setting goals to improve sustainability through improved energy efficiency, and as a result they are pressing owners to provide better transparency in disclosing information related to building sustainability performance. But many owners are generally disclosing qualitative information regarding their green certifications and initiatives

or savings in energy and other resources on a specific case basis, while investors want to see a more structured and ongoing reporting framework. Owners taking the more transparent and specific approach are able to provide investors with an evidence-based narrative to support their property valuation.

REGULATION

Every state in the US has commercial building energy codes that are based on standards set by LEED or the American Society of Heating, Refrigerating and Air-Conditioning Engineers. Local, state and federal governments are attempting to drive sustainability adoption by putting regulations in place to influence the design and development of new construction while at the same time offering financial incentives to drive compliance.

Energy

Tax relief is one of the most common incentives provided, examples of which include business tax deductions on energy efficiency investments and investment tax credits. Further, innovative financing programs such as Property Assessed Clean Energy provide access to low-cost, long-term capital to fund energy efficiency upgrades or renewable energy installations. However, the ultimate goal of many state governments is to gradually mandate and promote the adoption of zero-net standards. California is focusing on achieving that standard through the use of solar cells, micro-hydro, wind or off-site generation to earn renewable energy credits. There is also ongoing discussion concerning instituting regulations that would drive higher standards for existing buildings.

Water

Governments are also increasingly regulating the use of water through land-use restrictions, building codes and other mechanisms. According to a report from the US Government Accountability Office, more than 40 states are already experiencing, or will experience within the next ten years, freshwater shortages that will impact growth and development. The implications for commercial real estate are enormous and will affect land value, development viability and future investment.

California is addressing the issue with its Title 24 regulation that has mandated a 25 percent reduction in non-agriculture water usage throughout the state. Because of the risk of drought in California and statewide water restrictions, owners need to ensure water installations and irrigation systems use recycled water and prevent water run-off and waste. The

regulation states that there are incentives for owners to help mitigate the costs associated with replacing lawns, improving irrigation systems and upgrading metering systems to monitor water flow more accurately, which according to the EPA can be as high as 22 percent of total office building water consumption. In an effort to make up for the increased cost of water, there could be higher utility costs, tax increases and water rationing.

“The US is so far behind Germany, Spain and Sweden, it’s embarrassing.”

Regulations may also vary from one water district to another or by type of commercial property. Owners of suburban office parks will have to cut back on water used for landscaping which will not impact owners of urban office buildings. Both, however, will need to consider utilizing recycled water in features. For owners of industrial properties, it may be more difficult to mitigate water usage as their tenants often use significant amounts of water as part of their normal business processes. And California isn't alone in developing significant regulations relating to water consumption.

Arizona faces similar potential water shortage problems. However, unlike California, Arizona has had ongoing water management efforts in place for more than 35 years, including curtailing ground water use and utilizing dams to bank water to forestall emergency situations. The state's Groundwater Management Act requires developers to demonstrate a 100-year assured water supply in active management areas. This provision means that new developments cannot be built without water to serve them. No other state has such requirements.

THE FUTURE

Water shortage will become a major issue for many parts of the country and it, along with energy, will cost more in the future and will need to be factored into every development, investment and operating decision. Operating costs will increase in the form of new taxes and fees in order to fund the repair or replacement of existing infrastructure or to retire bonds that were sold to finance new infrastructure. Building owners also need to anticipate and plan for increased efforts at the national level to address sustainability issues in the next decade. In light of the growing concern surrounding sustainability, there are likely to be more policies advanced toward legislation and regulation affecting building design, development, operations and management. This is especially true at the state and local levels. It will become an issue of not “whether” to respond but “how” to respond.

A certainty in the years ahead is that those involved in the industry will need to become more aware of and educated about utilizing green building techniques to address sustainability issues. As that transition takes place and the associated costs come more in line with the lower costs of the evolving technology driving it, tenants will be more demanding in their requirement for these improvements and be prepared to pay the resulting rental premium.

The opportunity for the industry is to take a proactive approach to energy management with the goal of increasing NOI through cost savings, creating underlying asset value by improving property fundamentals over the long term and by retaining good tenants and attracting environmentally conscious new ones. For those building owners with poor sustainability performance who fail to respond to the challenge, the result may well be a significant “brown rental discount” that may ultimately lead to early obsolescence.

A Key Element

In the future, it will become increasingly more critical for building owners and managers who want to remain competitive to accurately measure and report the results of their sustainability efforts with a commitment to transparency. The Internet of Things already connects occupants directly to building systems to facilitate the use of resources when needed in order to optimize building performance. But owners can go much further beyond that and obtain direct and actionable information from data collected by using software to integrate and analyze multiple data sources. This will allow them to use predictive analytics to analyze historical and current sustainability data in order to gain insights regarding potential future risks.

There are already multiple avenues available to building owners to maximize the use of the IoT and wireless communication and we are already seeing the benefits in a number of areas. Smart buildings are a key element that will impact all of commercial real estate in the future.

Smart Buildings

Smart buildings have been evolving for decades but are just now able to employ advanced sensor technology and the IoT to enhance ROI and value. The result has been a major improvement in the capability afforded owners, managers and tenants to take more control over their operations. This has in turn increased the pressure for investment in the design, development and ownership of intelligent buildings to provide market differentiation and value beyond just location.

- Through technology owners now have a greater, more detailed and accurate ability to evaluate and assess the overall

operating potential of the property.

- Investors are provided greater and deeper access to extended operating data, enabling them to make better property valuations, risk assessments and investment decisions.
- With technology-enabled building and efficiency management systems, owners are able to more effectively control building operational costs and performance by monitoring, regulating and reducing energy, waste, repair, maintenance and administrative costs.
- Developers that are integrating smart technology into their designs are able to offer more desirable and market-competitive properties that offer tenants the ability to lower the cost of their operations.
- Smart monitoring systems can prevent equipment failures that impact tenant occupancy by scheduling preventive maintenance and replacement.

The industry is viewing the future with an eye on the larger picture as major metros begin to look toward developing master plans for creating “smart cities,” utilizing the interconnectivity of telecommunications and transportation.

THE ANSWER FOR COMMERCIAL REAL ESTATE

The bottom line for developers and owners and their due diligence providers is to stay abreast of new environmental requirements as the market continues to recognize and deal with the impacts of climate change and resource preservation. Investors should focus on those properties that have contingency plans in place to mitigate disruptions, address the need to conform to stricter future environmental regulation and fully utilize the conservation incentives that are already in place.

In its report—*Breakthrough for Sustainability in Commercial Real Estate*—Deloitte identified three key areas investors need to assess when considering how sustainability relates to each action and decision taken throughout the investment process.

- Investment appraisals and acquisition due diligence need to take account of regulatory, market and physical risks pertinent to the properties in question, which may require a longer-term risk outlook to identify possible impacts on exit yields, rental growth, and capital expenditure.
- Capital investment and business planning decisions must be

made in relation to sustainability in development projects and the routine maintenance, refurbishment and retrofitting of existing assets.

- The approach to investment strategy with respect to the exposure of capital to sustainability risks (e.g., physical hazards, tenant migration, lease liabilities, cost increases, etc.) over time will vary from owner to owner depending on risk appetite.

WATCH LIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies:

- The industry continues to be focused on short-term cost saving benefits rather than a long-term sustainability strategy.
- LEED, Green Globe and Energy Star ratings and certifications are not viewed as a long-term sustainability strategy as more defined conservation policies and legislation will be created at all governmental levels.
- Investors and tenants will become two key drivers for the implementation of energy saving initiatives through the requirements they will insist upon that will directly impact property valuation.
- Continued advancement in federal, state and local regulation will force investors, developers and owners to adopt meaningful sustainability strategies.
- As energy and water shortages continue to grow, sustainability will become a more important factor in evaluating property fundamentals like rental growth, yield, occupancy costs and asset valuation.

TAKEAWAY

Despite sustainability being a hot topic a few years back, it most certainly has cooled down. Sustainability sounds and still feels good but the returns are often too long term for many to be willing to pay top dollar for an extended payback.

One of the challenges facing the industry is the fact that rental growth is generally lower for properties in areas with high energy and utility costs. The result has been a greater divergence in tenant demand for prime and secondary properties. In response, the industry is slowly taking note of the necessity of addressing sustainability, but over the

longer-term owners will need to consider how sustainability relates to property valuation and investor action throughout the investment process.

Investors are now beginning to incorporate sustainability into the equation, which includes due diligence that takes into account regulatory, market and physical risks in order to identify and evaluate their impact on capital expenditures, rental growth and property valuation. For developers and owners, sustainability will need to play a larger role in business planning decisions in building design, routine building maintenance, renovation and replacement of assets.

The bottom line is that incorporating sustainability pays dividends in improved NOI from cost savings and increased revenues and draws higher quality tenants that are key to improving long term values through lower cap rates. But developers and owners are still not placing an emphasis on sustainability. They continue to be focused on the immediate benefits of today and not the longer term needs of tomorrow. And while the reluctance to allocate significant capital to conservation efforts is understandable in light of the slow payback, it also risks ignoring the game-changing trends already evident today.

Forbes reported that 64 percent of Millennials place a very high value on work that makes the world a better place, which is even more important to them than high salaries. They care deeply about the values of their workplace and they have more resources than ever to do deep research before making any major decisions. Transparency about sustainability builds trust with this generation that thrives on access to information. There is little doubt that it will play a major role in the decisions they will soon be making as tenants, investors and leaders in the industry.

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REGULATIONS

A New Kind of President Brings Uncertainty
and a Totally Different Direction



ABSTRACT

The contentious 2016 election season that was filled with many unknowns has culminated with a new administration in the White House and a whole new set of unknowns. There are numerous important issues being addressed from federal regulations in the financial industry to modifications of the tax code to uncertainty regarding Fannie Mae and Freddie Mac. This chapter examines a number of key issues and the potential impact they may have on commercial real estate going forward over the next four years and beyond.

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INTO THE UNKNOWN

As of November 8th, the country entered into uncharted waters in the face of uncertainty on both the economic and political horizons. And now that President Trump is laying out his ambitious plan for the next four years there is both a mood of optimism and pessimism in the country, depending upon how one views his plan. The question on almost everyone's mind is whether he will be able to successfully lead the country into a new era of prosperity or will his administration incur the same result as that of many past presidents—many unfulfilled promises. Uncertainty is at an all time high.

Over the decades, commercial real estate has gone through this evolution every four years as the administration in Washington sets forth on either a continuation of the past four years or on the path of a promised new direction. However, over the past seven decades the result of ambitious plans being quickly implemented has sometimes resulted in the emergence of a recession within 12 to 18 months. Add to that scenario the fact that the country has opted to place a businessman in the oval office rather than a politician and the question you hear is "will this time be different?" The answer is definitely this time will be different. But judging by the comments and opinions being expressed across the country, none of the experts truly know what the president will do in implementing his vision for the country.

There is, however, a clue in remembering who President Trump is and

where he comes from, which for some is one of their greatest concerns. In his book, *Trump 101: The Way to Success*, the president defined his approach to business, the one he has brought to the oval office.

“Experience comes from action, or doing, and entails taking risks. Knowledge is essential, but knowledge alone isn’t enough. You must act on your knowledge—put it to work—because doing is how you learn and ultimately prove yourself. Lord knows I’ve taken lots of risks and not all of them were rousing successes. Few things worth doing are risk free, so prepare to take risks. Don’t always play it safe, but do try to minimize the dangers and know exactly how much you could lose. Frequently the risk will be well worth the gamble, but sometimes it will be more than you can afford.”

He has already evidenced that philosophy by executive action on immigration, health care, trade, energy, the environment and federal regulation.

So, as we enter into the next four years, the president sets forth with the support of those who are willing to take on more risk and the opposition of those who believe that the status quo is the path to take. And as both of these perspectives are alive and thriving in commercial real estate, in this chapter we highlight a number of areas in which there is ambiguity as to both the direction that the president will take and the ultimate outcome. We take a look at several key areas of the president’s agenda that are expected to impact the industry, whose outcome are now even more uncertain than before.

WHAT COULD IT MEAN FOR THE ECONOMY?

The president continually set forth his desire to change the direction of the US economy in his build-up to the election, and now that desire is being integrated into many of his proposals. Only time will tell what the impact will be. In this section, we attempt to examine four key parts of the economy that will not only have an impact on commercial real estate but on individual Americans all across the country: infrastructure spending and energy production, international trade and tax reform.

Investment in Infrastructure and Energy

For decades America has failed to adequately maintain its bridges, tunnels, airports, highways, the electric grid, our water supply and the transportation systems.

The president's plan to significantly increase spending on improving the country's infrastructure and achieving energy independence is viewed as a powerful economic engine that will create jobs, increase wages and increase US manufacturing and energy production. One of the key elements of the plan is to work with Congress to encourage private investment through various public-private partnership (PPP) formats. The goal of these partnerships is to apply the private sector profit motive to the program in an effort to avoid the cost overruns and waste that are often associated with government run programs. In the past, PPPs have been successful but they have also resulted in cost overruns similar to their government run counterparts.

The overall impact of infrastructure spending will be positive for the industry, but it is unknown where and when that spending will take place and which sectors will be the largest beneficiaries. Money expended in central business districts will directly impact the development of multi-family, office and retail properties while expenditures in the suburbs will benefit older office and industrial properties.

With respect to the energy sector, if policies aimed at energy independence are implemented they will encourage production across the entire energy spectrum of coal, oil and natural gas. He has already taken action on two major pipeline projects that have been in suspension—Keystone XL and Dakota Access. The impact on the economies and commercial real estate in the areas that are affected would be positive as a result of greater employment and increased wages. Then again, energy policy will be impacted by the politics of climate change, which will certainly be front and center in the policy debate in Congress and at the state level, along with other issues such as fracking.

“Commercial real estate, like residential real estate, is a local business.”

There are concerns that increasing jobs in an already tight labor market will result in companies having to pay higher wages to attract talent, which will bring about higher prices and increased inflation. Goldman Sachs believes that the actual infrastructure spending—\$500 billion to \$1 trillion over the next decade—won't actually begin until Q3 2017 and the true results won't be known for some time. There are those who point out the benefits of infrastructure investment by including all of the activity generated from project development, but they exclude the taxes raised to pay for the project.

During these times of uncertainty, many of those in the industry that we interviewed believe that if the administration's goal of four percent

growth is achieved, strong commercial real estate investment will follow. But for now, investors are taking a wait-and-see attitude. And the industry will need to monitor the process as the infrastructure plan faces a long climb through the legislative process.

The Issue of Trade

At the outset of his campaign, President Trump made it clear that he did not support the Trans-Pacific Partnership, the Transatlantic Trade and Investment Partnership or the North American Free Trade Agreement. This has not been well received by economists who worry how Mexico and Canada will respond, ultimately impacting the cost of goods in the US. If additional tariffs are imposed on Chinese and Mexican goods coming into the country, Moody's Analytics estimates the prices of foreign goods that Americans buy could increase by nearly 3 percent, resulting in a recession in two years. On the other hand, if subsequent trade deals ultimately increase economic activity it may well be a boost to commercial real estate fundamentals. But for the retail sector the unknown status of the trade issues has generated widespread uncertainty.

According to Morgan Stanley if the president's proposals were enacted—even with confirmed individual tax cuts—they would likely do significant damage on both sides of the register. But they also estimate that his proposed 15 percent corporate tax cap could provide significant relief by boosting the income of domestic companies and their profits by as much as 30 percent.

“Uncertainty and rhetoric is riding high, and confidence and controversy are both on the rise.”

Perhaps the president's aggressive attitude toward China has caused the greatest concern. The fear is that a trade war with China would cost the US billions of dollars, which would be passed on to the American consumer in the form of higher prices. The Peterson Institute for International Economics estimates, for example, that a 35 percent tariff on Chinese tires would cost consumers \$1.1 billion while saving only 1,200 jobs. This uncertainty is also impacting commercial real estate, as the flow of global capital into the US has been a solid contributor to the industry's sustained profitability, particularly from China.

At this juncture, while some investors are sitting tight, there has not been a major slowing of global capital coming into commercial real estate. The US continues to be seen as a safe haven and a popular investment destination and there are many in the industry of the opinion that foreign investors may accelerate deals in the coming months as a hedge against the possibility of potential barriers to foreign investment in the future.

The bottom line for the industry at this point is to take a wait-and-see attitude with respect to any fallout resulting from any action taken on trade and immigration that will likely produce both winners and losers. The following sections highlight some of the other areas that may be impacted by a Trump presidency.

CHANGES THAT COULD IMPACT COMMERCIAL REAL ESTATE

In this section, we try to address several of the key areas where the president's proposals have the potential to impact the industry: government regulation, the tax code and Fannie Mae and Freddie Mac.

Government Regulation

The most significant regulation that may be addressed by the president will be Dodd-Frank and the Consumer Protection Act. While we cover Dodd-Frank in more detail in the chapter on *In Search of Debt*, the following highlights the anticipated focus of action to be taken by the administration.

The president has expressed a desire to roll back or eliminate Dodd-Frank in an effort to provide banks more leeway in the future. This is based on the view that while the act was intended to provide safeguards against risky banking practices, it has brought about costly compliance timelines and uncertainty.

The question is what will replace it? The consensus is that rather than replacing the act the administration will have greater success in peeling back individual issues over time, like the CFPB and the Risk Retention Rules. The rules related to commercial mortgage-backed securities (CMBS) went into effect on December 24, 2016 and require loan originators to maintain some skin in the game by holding a portion of the deal they help to structure. Loosening of the rules could boost CMBS issuance in the future and removal of the associated higher costs could make CMBS more competitive.

The president's action is expected to heavily focus on lifting the compliance costs imposed on local and community banks that according to NAR Chief Economist Lawrence Yun have historically functioned as providers of funding for construction and land development. Relieving smaller

banks of this compliance is a popular and broadly supported goal.

The president and Congress are concerned that the CFPB is operating as a government agency without oversight as it derives its funding from the Federal Reserve without any budgetary control from Congress. Expect changes here by the middle of 2017.

At the end of January, the president signed an executive order to dramatically reduce federal regulations in order to lift the burden on small and large businesses by eliminating two orders for every one new regulation. It is anticipated in light of the president's campaign promises that he will press for new policies and legislation in an effort to encourage economic growth and job creation.

Changes to the Tax Code

The administration has made some bold statements regarding the president's plans for reshaping the tax code with the goal of "simplifying" it by altering the tax brackets and potentially placing a number of deductions on the chopping block. The following are the key pieces that were put forth during his campaign, which the president believes will put the US on a fast track to injecting \$4-6 trillion into the economy over the next decade:

- Reduce the corporate income tax rate from 35 percent to 15 percent and make that available to the 90 percent of all US businesses that are pass-through entities.
- Consolidate individual tax brackets of 12, 25 and 33 percent.
- Increase the standard deduction to \$15,000 for single filers and \$30,000 for married filers in order to move taxpayers away from itemized deductions.
- Repeal the estate tax and replace it with the capital gains tax at death.

It is important to bear in mind that historically, pre-election positions on tax reform do not often translate into actual legislation. This time however may be different.

Depreciation

A key part of the House GOP plan involves the expensing of the full purchase price of a building instead of taking depreciation deductions over a number of years. Investors would be able to write off the building immediately in one year. The utilization of a huge deduction in year one will likely create an operating loss that can be carried forward. There is also a proposal that would limit or eliminate the deduction of net interest expense, which would impact the use of leverage in buying a property. These changes would affect the market by changing the economics of commercial real estate investments and influencing the decisions investors will make with respect to buying, holding, and selling property.

Carried Interest

The administration has indicated it is in favor of modifying the current-law tax rules governing the taxation of carried interests, which allow Wall Street fund managers, venture capitalists, real estate entrepreneurs, and others to count earnings as capital gains instead of ordinary income. One reason for this may be the fact that such a change could generate \$17 billion in tax revenue over the next decade. However, eliminating the deduction would have a major impact on commercial real estate, as carried interest is an integral part of the structure of many real estate partnerships and joint ventures.

In many cases the major portion of gain from a partnership comes from the sale of the property, which is taxed as capital gains as opposed to ordinary income. Sponsors or general partners depend upon their share of that profit—their carried interest—as the largest factor of their compensation. If that incentive is removed, it will become more expensive for equity investors in a real estate partnership to compensate the general partner, who will be forced to charge a higher percentage of the transaction to compensate for the fact that their interest is now being taxed as ordinary income.

Repatriation of Corporate Profits

The president has proposed a one-time tax of 10 percent on repatriated corporate profits held offshore by multinational corporations that have acquired a foreign corporation that conducts at least 25 percent of the affiliated group's total business activities. The view is that, when coupled with a new lower corporate tax rate of 15 percent, this incentive will result in the return of manufacturing to the US, which will result in increased employment, higher wages and increased tax revenue resulting from the shift of profits and operations back to the US.

For commercial real estate, growth of manufacturing would affect all sectors as a direct result of increased capital investment in the US. But there is uncertainty about how the repatriated funds—estimated to be approximately \$2.6 trillion—would actually be used; would the repatriated funds be used to buy back shares or for capital expenditures to increase profits.

In a November 5, 2016, article in the Motley Fool it was pointed out that one example of the potential impact of this part of the plan is that “for starters, Microsoft could wipe out every cent of the nearly \$76 billion it currently has in debt and wind up with more than \$20 billion to spare.” But the big “if” in the discussion is whether or not President Trump is able to get his tax holiday implemented by Congress. If he does, then the potential impact for the industry could be significant if those funds find their way into capital expenditures that promote manufacturing, development and jobs and not directly into the shareholders' pockets.

1031 Like-kind Exchanges

There are members in Congress who favor eliminating IRS Section 1031 Like-kind Exchanges. At the present time, President Trump has not yet taken a position on Section 1031. However, he has likely used them in the past and certainly has a strong economic rationale to justify their retention as was laid out in a study by the University of Florida and Syracuse University:

- Nearly six percent of all commercial real estate transactions are like-kind exchanges.
- Nearly 88 percent of exchanged real estate replacement properties are eventually disposed of in a taxable sale resulting in substantially more tax being paid than would have been due had the exchange not occurred.
- Exchanged properties later sold in a conventional, taxable sale produce an increase of approximately 19 percent in taxable gain over non-exchanged properties subsequently sold in a conventional sale.
- Section 1031 investors are more likely to make greater capital improvements to real estate properties acquired through an exchange than properties purchased by the same owner through an ordinary sale.
- Investment in exchanged property is an average of \$305,000—33 percent of the property value—higher than acquisitions by the same investor in a property acquired following a conventional sale.
- Investors in like-kind exchanges use six percent less leverage compared to ordinary acquisitions. This makes the real estate market more stable and reduces financial system-wide risk.

Like-kind exchanges are sure to be challenged as the president negotiates his tax reform plan with Congress, but with a strong lobbying campaign urging Congress to preserve the provision, along with a likely-supportive president, it's a better-than-even bet that commercial real estate will retain one of its most important tools. And support will certainly come from NAR as noted by President William Brown; "1031 like-kind exchanges are absolutely critical for real estate investment. It's our job to remind legislators that 1031 exchanges aren't a tax break, but rather a deferral that encourages investment back into the economy."

To lose the 1031 exchange option would be devastating to commercial real estate, where it is the life-blood of the smaller brokerages and their clients, as well as to many larger projects.

Fannie Mae and Freddie Mac

September 6, 2008, marked the moment in the midst of the economic crisis that the federal government stepped in and took control of Fannie

Mae and Freddie Mac, putting both Government Sponsored Enterprises (GSE) into conservatorship. From that moment on the issue of their ultimate destiny has been up in the air: shut them down, convert them into public companies or restructure and downsize them as ongoing GSEs.

One of the biggest questions facing the multifamily sector is what might happen if and when GSE reform occurs and ultimately how much government control, oversight or support Fannie and Freddie will have in the future. GSE reform can occur in one of two ways—either through the Treasury Department or through Congress.

For commercial real estate, reducing the GSEs' role would represent a significant change in the way the industry investment process operates and result in more risk and more cost than with the federal guarantee in place. Without Fannie and Freddie, the majority of the multifamily lending sector would be forced to look at other sources such as insurance companies, banks and lenders dealing with CMBS that already have a secondary market. Monitoring the effort to resolve the status of the GSEs will be important given their significance to the entire real estate sector, including the multi-family segment.

On May 4, 2016, the Federal Housing Finance Agency (FHFA) increased the multifamily lending caps for both GSEs from \$31 billion to \$35 billion, and when added to the uncapped business their combined lending could approach \$100 billion. The goal has been to keep them at a financing level of approximately 30 percent of the overall multifamily financing market; the estimate for 2016 was \$260 billion. Borrowers also used Fannie and Freddie to refinance apartment loans, which included many 10-year loans, that will reach maturity in 2017.

In 2012 President Obama made the decision to allow every dollar earned by the GSEs to go into the Treasury's account in perpetuity, which has been challenged in court as violating the Housing and Economic Recovery Act of 2008. President Trump would like to see Fannie and Freddie reconstituted but the Republican chairman of the House Financial Services Committee wants to end them by removing government support. It appears that the president is considering the approach that is being promoted by his top policy advisor who is an investor in Freddie Mac. His plan is to reform the GSEs and pull them out of conservatorship. And that plan got a boost on November 30, 2016 when the president's Treasury Secretary announced that he supported removing Fannie and Freddie from government control. At this stage the direction cannot be determined.

WATCH LIST

The following are key trends or critical areas to monitor as they can have an impact on both large national and/or smaller regional/local commercial real estate companies.

- Loss of 1031 like-kind exchanges would have a serious negative impact.
- Loss of Carried Interest would negatively impact Limited Partnerships.
- The future of Fannie Mae and Freddie Mac and the impact on multi-family financing remains uncertain.
- Impact of changes to Dodd-Frank with respect to the cost and availability of regional and local bank financing.
- Major infrastructure expansion affecting manufacturing and industrial real estate.
- Trade agreements affecting the flow of foreign capital into commercial real estate.

TAKEAWAY

The new president comes into office with several proposals intended to stimulate the economy, including a massive infrastructure and energy spending program, new trade policies, an overhaul of the tax code, a major restructuring of Dodd-Frank and a new direction for Fannie Mae and Freddie Mac.

The key unknown is that even with a Congress and White House controlled by the GOP, there still loom major battles ahead in getting the president's agenda enacted. And it is very likely that his proposals will be tempered as they move through Congress, so consideration must be given to not just what gets changed, but the way in which those changes are made and phased in.

It is impossible to predict the outcome until President Trump's proposals are put into action in order to determine what they might mean for the economy and specifically for commercial real estate. There are some who believe that his election increases the risk of another recession because of his aggressive plans to forcefully implement his fiscal policies while others believe his policies will not dramatically impact the economy or commercial real estate.



OTHER TRENDS TO TRACK

Cyber Security, License Portability,
Mergers and Acquisitions, etc.

9

ABSTRACT

In the process of gathering information and interviewing industry executives there were a number of other trends that were mentioned as having a lesser but still potential impact on the commercial real estate industry. This chapter highlights those additional areas.

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Mergers and Acquisitions

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CYBER SECURITY

In the rapidly changing world of real time mobile interconnectivity, the threat of cyber attacks has become very real. With the emergence of smart buildings, automated building management systems, the increased utilization of information systems in brokerage/leasing activities and property management, client and tenant data is at a real risk of being compromised. Commercial practitioners will have to adopt a far more proactive approach to cyber security with the first step being the evaluation of the risks inherent in the technology they are using or intend to use to remain competitive. Overall cyber security must become an integral element in the future of every commercial real estate company.

LICENSE PORTABILITY

The issue of commercial real estate license portability has been a concern for decades. The various state regulations and requirements continue to make it difficult for brokers to effectively represent their clients across state lines. Recently, however, Marcus & Millichap has been involved in two significant lawsuits that will affect performance of licensed services in cooperation with, and according to, a written agreement with a local licensee. These cases have brought the issue of portability center stage highlighting the need for a coordinated effort to work with states from a national perspective to achieve standardized portability regulations. There are over 78,000 primary commercial real estate members in NAR, with 43 percent of them coming from independent firms.

MERGERS AND ACQUISITIONS

With mega-mergers—like DTZ's \$2 billion merger with Cushman & Wakefield and CBRE's \$1.475 billion purchase of Johnson Control's facilities management business Global Workplace Solutions—or large players such as CBRE, JLL and Colliers buying up smaller companies, in the \$10M to \$20M range—to strengthen their market coverage—M&A will continue to be hot over the next several years as competition for market dominance increases.

DRONES

At the present time legislation addressing the potential risks and threats to private property rights, liability and personal injury does not exist. As a result, commercial real estate has been slow to invest heavily until the Federal Aviation Administration establishes a formal policy. That said, drones are already being utilized in construction, surveying, management and property inspection and now the advancement of drone technology is making its way into commercial real estate as an affordable and flexible marketing tool. Brokers are using drones to develop marketing packages that afford prospective investors and tenants the ability to remotely visualize interior and exterior views of a property from an entirely new perspective at a fraction of the cost of aerial photography.

SKILLS TRAINING

There is a serious lack of education and skills training available for new agents coming into the industry that, along with the senior members of the industry moving into retirement, is going to result in a huge loss of knowledge. While several of the larger companies are engaged in finding and implementing solutions for the lack of skills training, the majority of the industry is ignoring the challenge and is falling further behind. There are approximately 100 colleges and universities that offer advanced real estate degrees and organizations like SIOR and CCIM offer advanced professional education and training, but the next generation of brokers—the Millennials—isn't interested in that career path. They have little or no interest in commission-based employment and that doesn't bode well for the future of the commercial real estate industry.



APPENDIX

Resources, Industry Leaders Interviewed,
Strategic Thinking Advisory Committee

RESOURCES

Publications, Reports and Case Studies Reviewed

- ***1st Annual ABA Commercial Real Estate Survey Report.***
American Bankers Association. April 2016
- ***2016 Commercial Member Profile.***
National Association of REALTORS® Research Division. 2015
- ***2016 Global Real Estate Market Outlook.***
CBRE Research. 2016
- ***25 Predictions for 2014: International Capital Will Seek Property Returns Around the Globe.***
Colliers International. Q1 2014
- ***40 Days to Success in Real Estate Investing.***
Shemin, Robert. John Wiley & Sons, Inc. 2005
- ***Atlas Outlook 2016.***
Cushman & Wakefield Capital Markets Research Publication. 2016
- ***Cautionary Signals from Commercial Real Estate Markets and Consumers.***
DeLisle, James R. The Appraisal Journal. 2015
- ***CBRE Facility Management Trend Report: Emerging Opportunities for Industry Leaders.***
CBRE and International Facility Management Association. 2014
- ***Center for Real Estate Year in Review 2014-2015.***
UCI Paul Merage School of Business. 2016
- ***City Momentum Index.***
Kelly, Jeremy. Jones Lang LaSalle IP, Inc. Q1 2014
- ***Commercial Issues and Actions.***
National Association of REALTORS®. August 2014
- ***Commercial Real Estate Brokerage & Management.***
First Research. November 2013
- ***Commercial Real Estate Chartbook: Q1: Weakness in the CMBS Market is Front and Center.***
Khan, Anika R. and Causey, Julianne. Wells Fargo Securities, LLC Economics Group. May 2016
- ***Commercial Real Estate Lending Trends 2016.***
National Association of REALTORS®. 2016
- ***CRE at a Crossroads.***
Hall, Phil. American Bankers Association. March/April 2016
- ***CRE: Time to Wave the Caution Flag?***
PwC Real Estate Investor Survey. Q1 2016
- ***DallasFed Working Paper [1504]: The Other (Commercial) Real Estate Boom and Bust: The Effects of Risk Premia and Regulatory Capital Arbitrage.***
Duca, John V. and Ling, David C. Federal Reserve Bank of Dallas. March 2015
- ***Digital Disruption in the Workplace.***
Cushman & Wakefield. August 2016

- ***Downsizing and Workplace Trends in the Office Market.***
Miller, Norm G. Real Estate Issues. 2013
- ***Driving an Aggressive Occupancy Cost Reduction Program: A White Paper for Corporate Real Estate.***
CBRE Global Research and Consulting. April 2013
- ***Economic Impacts of Commercial Real Estate.***
Fuller, Stephen S. NAIOP Research Foundation. June 2015
- ***Economic Impacts of Commercial Real Estate.***
Fuller, Stephen S. NAIOP Research Foundation. June 2016
- ***EMEA Viewpoint: The Future of Workplace Strategies in the Banking and Finance Sector.***
Munn, Ben and Holberton, Richard. CBRE Research. March 2012
- ***Emerging Trends in Real Estate: United States and Canada 2016.***
Urban Land Institute and PwC. September 2015
- ***Expectations & Marketing Realities in Real Estate 2016: Navigating Through the Crosscurrents.***
Situs RERC and National Association of REALTORS®. January 2016
- ***Exploring the New Sharing Economy: White Paper.***
Madden, John. NAIOP Research Foundation. April 2015
- ***Financing Secrets of a Millionaire Real Estate Investor.***
Bronchick, William. Dearborn Trade Publishing / A Kaplan Professional Company. 2003
- ***Global Health Organizations: A White Paper for Global Health Facilities.***
Mann, Roy. CBRE Global Research and Consulting. April 2012
- ***GlobeSt.com Finance Quarterly: The Bean Counters Who Cried Wolf.***
Morphy, Erika. The Real Estate Forum. June 2014
- ***Glossary of Commercial Real Estate Terms. REALTORS® Commercial Alliance.***
National Association of REALTORS®. December 2005
- ***How Close are we to the End of the Current Cycle?***
CBRE Viewpoint Global. May 2016
- ***Inside Real Estate: Annual Strategy Outlook for 2016.***
Principal Global Investors. January 2016
- ***Introduction to SAP Real Estate Management.***
Mnich, Christian. SAP AG. October 2006
- ***Investment and Vacation Home Buyers Survey 2015.***
National Association of REALTORS® Research Division. April 2015
- ***Marketbeat: U.S. Shopping Center Snapshot.***
Cushman & Wakefield. Q4 2015
- ***NAR Issue Summary: Commercial Finance / Commercial Real Estate Lending.***
National Association of REALTORS®. 2013
- ***Quarterly Market Trends.***
CCIM Institute and NAR. October 2015
- ***Quarterly Market Trends: Commercial Real Estate Trends and Transaction Analysis.***
CCIM Institute and NAR. Q3 2015

- ***Real Estate Law is Becoming Increasingly Complex.***
Starzee, Bernadette. The Dolan Company. June 2014
- ***Research and Forecast Report: US Capital Flows: Year-End 2015.***
Colliers International. 2016
- ***SAP Real Estate Management Release 4.6C.***
SAP AG. 2001
- ***SAP Real Estate Management: Business Maps.***
SAP AG. September 2005
- ***Seniors Housing Research Report: Hanging in There.***
Mattson-Teig, Beth. NREI. July 2016
- ***Situs RERC Real Estate Report Vol. 44 No. 4.***
Situs RERC. Q4 2015
- ***Stabilizing Values May Signal End of Expansion.***
PwC Real Estate Investor Survey. Q2 2016
- ***The Business of Cities 2013.***
Moonen, Tim and Clark, Greg. Jones Lang LaSalle IP, Inc. November 2013
- ***The Commercial Real Estate Industry is Evolving. Are You?***
CCIM Institute. July/August 2016
- ***The Commercial Real Estate Industry is Evolving. Are You?***
CCIM Institute. May/June 2016
- ***The Exponential Future of CRE.***
Kasselman, Geoffrey. National Association of REALTORS®. November 2016
- ***The NAIOP Sentiment Index Industry Leaders' Outlook for Commercial Real Estate.***
NAIOP Research Foundation. March 2016
- ***The Promise of E-commerce: Impacts on Retail and Industrial Real Estate: White Paper.***
Spencer, Curtis D. and Schellenberg, Steve. NAIOP Research Foundation. March 2015
- ***The Real Estate Investment Handbook.***
Haight, Timothy G. and Singer, Daniel. John Wiley & Sons, Inc. January 2005
- ***U.S. Commercial Real Estate Outlook: The Return to Volatility.***
TIAA CREF Financial Services. March 2015
- ***U.S. Macro Forecast: A Correction or a U.S. Recession?***
Cushman & Wakefield. February 2016
- ***ULI Real Estate Consensus Forecast: A Survey of Leading Real Estate Economists/Analysts.***
Kramer, Anita. Urban Land Institute Center for Capital Markets and Real Estate. April 2016
- ***Workplace Transformation Survey: A Global View of Workplace Change.***
Cushman & Wakefield. 2013/2014

COMMERCIAL LEADERS INTERVIEWED

Adrian Arriaga

Owner
AAA Real Estate & Investments

Tray Bates

President / CEO - Broker
Bates Commercial LLC

William E. Brown

Co-Managing Member
Springhill Real Estate Partners

Jim Helsel

President / CEO
Helsel, Inc., Realtors®

Brett Hunsaker

Executive Vice President / Regional Managing Director
Newmark Grubb Knight Frank

Geoff Kasselmann

2017 SIOR Global President
Executive Managing Director
Newmark Grubb Knight Frank

David Lockwood

Executive Vice President / COO
Colliers International South Carolina, Inc.

Emily Line

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Steve Moreira

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Magic Properties & Investments

Lou Nimkoff

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Brio Companies

Jay Olshonsky

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NAI Global

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Cushman & Wakefield | PICOR

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Bob Turner

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Dan Wagner

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Soozi Jones Walker
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Robin Webb
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NAI Realvest

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