



Emerging Trends in Real Estate®

United States and Canada 2017



Emerging Trends in Real Estate® 2017

A publication from:



Emerging Trends in Real Estate® 2017

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Notice to Readers

Emerging Trends in Real Estate® is a trends and forecast publication now in its 38th edition, and is one of the most highly regarded and widely read forecast reports in the real estate industry. *Emerging Trends in Real Estate® 2017*, undertaken jointly by PwC and the Urban Land Institute, provides an outlook on real estate investment and development trends, real estate finance and capital markets, property sectors, metropolitan areas, and other real estate issues throughout the United States and Canada.

Emerging Trends in Real Estate® 2017 reflects the views of individuals who completed surveys or were interviewed as a part of the research process for this report. The views expressed herein, including all comments appearing in quotes, are obtained exclusively from these surveys and interviews and do not express the opinions of either PwC or ULI. Interviewees and survey participants represent a wide range of industry experts, including investors, fund managers, developers, property companies, lenders, brokers, advisers, and consultants. ULI and PwC researchers personally interviewed more than 500 individuals and survey responses were received from more than 1,500 individuals, whose company affiliations are broken down below.

Private property owner or developer	31.1%
Real estate advisory or service firm	27.9%
Investment manager/adviser	6.7%
Homebuilder or residential land developer	6.6%
Bank lender	4.9%
Equity REIT or publicly listed real estate property company	4.8%
Institutional equity investor	4.6%
Private REIT or nontraded real estate property company	2.1%
Institutional lender	1.2%
Real estate debt investor	0.6%
Securitized lender	0.3%
Mortgage REIT	0.1%
Other entity	9.2%

Throughout the publication, the views of interviewees and/or survey respondents have been presented as direct quotations from the participant without attribution to any particular participant. A list of the interview participants in this year's study who chose to be identified appears at the end of this report, but it should be noted that all interviewees are given the option to remain anonymous regarding their participation. In several cases, quotes contained herein were obtained from interviewees who are not listed. Readers are cautioned not to attempt to attribute any quote to a specific individual or company.

To all who helped, the Urban Land Institute and PwC extend sincere thanks for sharing valuable time and expertise. Without the involvement of these many individuals, this report would not have been possible.



Playing for Advantage, Guarding the Flank

“Big assets, big cities, big capital, and big competition. The U.S. is more in favor than the rest of the world right now.”

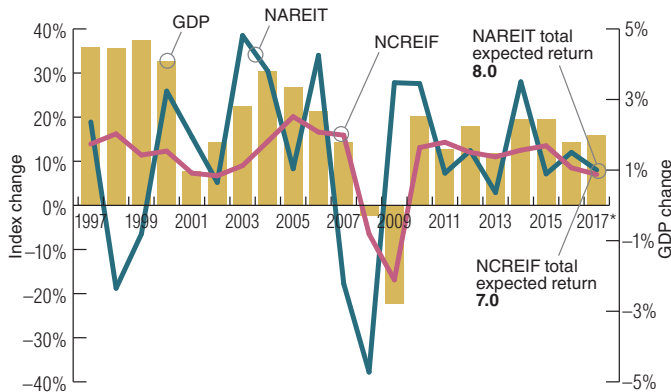
The game of chess is not a game of chance, but requires mastery of a complex set of skills that are both art and science. A player needs to be alert, equally aware of the strengths and weaknesses of his own position and that of his opponent. A plan is needed, most assuredly. The number of possible games that can develop, however, exceeds the number of atoms in the universe. Hence, flexibility within the plan is critical. Each move has a short-term impact and is also a step in positioning for a victorious endgame.

Like chess, the real estate playing field requires an artful mix of skills, tactics, and strategies. A chessboard is limited to just 64 squares and is two-dimensional. Real estate's domain covers a lot more space, and requires thinking across economic, social, political, and technological dimensions.

Beginners may often extend themselves swiftly and aggressively into the fray, seeking quick advantage but overlooking the impact of countermeasures that are obvious to more experienced players. Strategic thinkers see beyond the “next move” and anticipate the development of a series of moves that, taken together, create a more powerful control of the board.

As we consider the emerging trends going into 2017, we try to look two or three moves ahead in the fascinating and competitive field that is the real estate industry. And, since no single move can be considered in isolation, it will be important to see the pattern linking several trends as they evolve interactively.

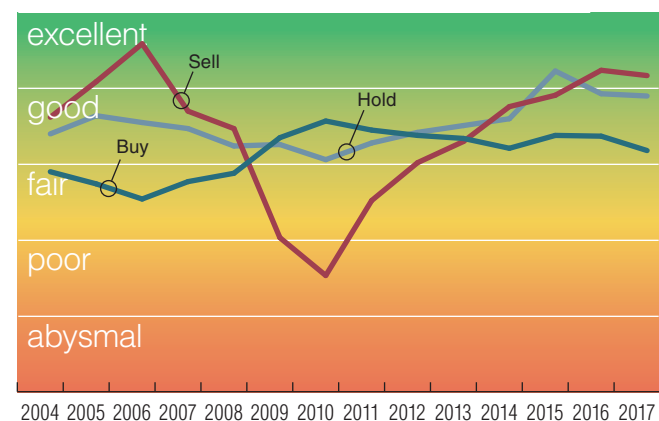
Exhibit 1-1 U.S. Real Estate Returns and Economic Growth



Sources: NCREIF, NAREIT, Bureau of Economic Analysis/U.S. Department of Commerce, ULI Real Estate Consensus Forecast.

*NCREIF/NAREIT and GDP data for 2016 and 2017 are based on forecasts for these indicators in the ULI Real Estate Consensus Forecast, October 2016.

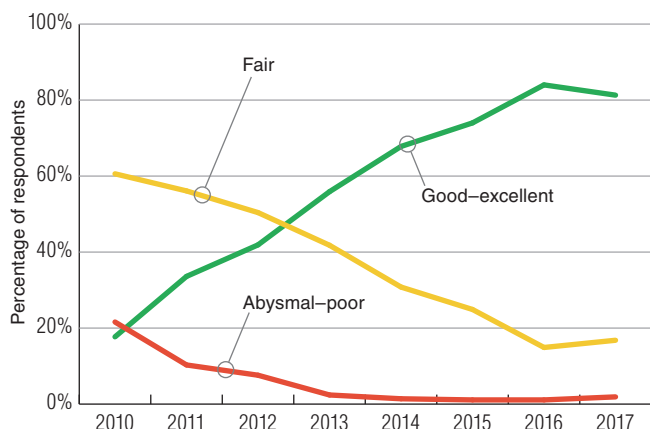
Exhibit 1-2 Emerging Trends Barometer 2017



Source: Emerging Trends in Real Estate survey.

Note: Based on U.S. respondents only.

Exhibit 1-3 Firm Profitability Prospects for 2017



Source: *Emerging Trends in Real Estate* surveys.

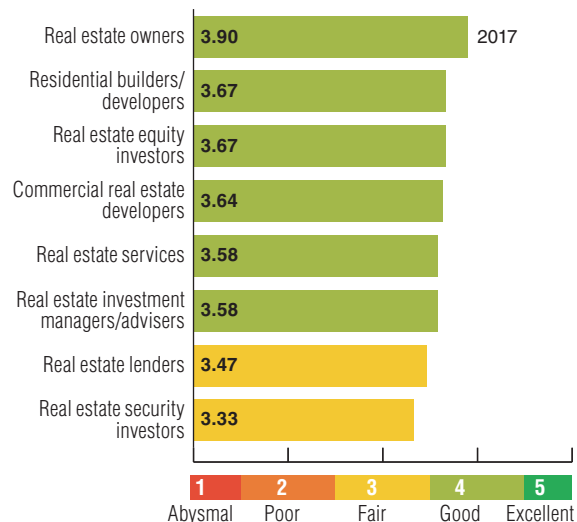
Context: A Kinder, Gentler Real Estate Cycle?

The disruption wrought by the global financial crisis violently upended financial markets around the world and hammered real estate markets in the United States. In a real sense, the reverberations continue. Real estate transaction volume across the country rebounded, but development remains below historical norms for most property types. A major publisher of real estate news and commentary says, “We have never been in a real estate cycle like this.” Overall, there is a sense that real estate has learned painful but valuable lessons. This time, real estate will not likely be the trigger for a business cycle recession. And, as far as the number of “innings” remaining, here is what one chief executive officer (CEO) with multiple international investment partnerships said: “Don’t worry about innings. This is a doubleheader.”

At 85 months’ duration (as of August 2016), this business cycle was already the fourth longest in U.S. history, far longer than the average 58-month upturns since World War II. Many concurred with an institutional equity investor describing this as “a mature phase of the cycle.” As is so often the case, averages are of little help in understanding business cycle duration. Cycles have been lengthening over the past half-century, and both the 1980s and 1990s saw growth phases of 92 and 120 months, respectively. In a word, cycles do not die of old age.

Little in the U.S. macroeconomic data suggests overheating, the primary symptom of trouble ahead for the cycle. Real gross domestic product (GDP) growth has settled in at about 2 percent per year, and job growth—monthly aberrations notwith-

Exhibit 1-4 Real Estate Business Prospects



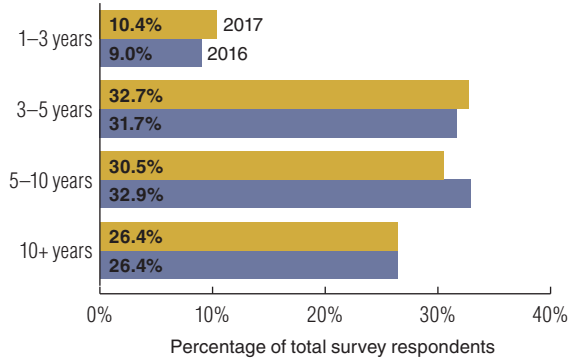
Source: *Emerging Trends in Real Estate* 2017 survey.

standing—is running at about a 1.7 percent pace, approximately 2.5 million annually. The Federal Reserve has been exceptionally cautious about raising interest rates, due to volatility in the data, in financial markets, and in the geopolitical climate. The Fed has shown little inclination to “take away the punchbowl.”

A major factor in seeing the real estate cycle extending even deeper into the future is the difficulty of securing construction financing. This is effectively keeping the oversupply that is typical of a late cycle from emerging this time around. An international investment executive notes that bank regulators and new risk rules have enforced discipline on lending, a primary factor in the development slowdown.

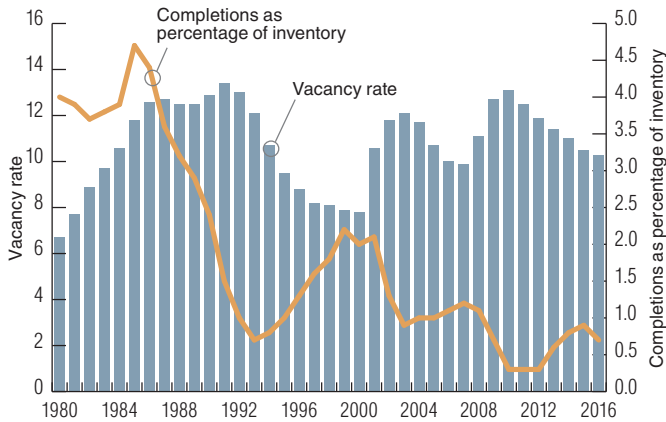
The volume of available capital that is seeking “core properties” has pushed pricing past prior peaks in many markets, making some moves on the chess board costly. Reduced leverage ratios have shifted more risk toward the equity investor. As one longtime observer of institutional investors put it, “We are in the ‘white knuckle’ phase of the cycle. Champagne is not flowing at closings.”

Traditional sources of capital are favoring a “risk-off” approach. Acquisitions are extremely selective, with cap-rate compression having spread into secondary markets over the last two years. “Risk is on the demand side,” in the view of a West Coast-based investment manager.

Exhibit 1-5 Time Horizon for Investing

Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

Exhibit 1-6 New Commercial Square Footage as Percentage of Inventory

Source: REIS Inc.

Note: Includes industrial, office, and neighborhood and community retail space.

Where many felt a year or two ago that real estate cap rates had no direction to go but up, an emerging consensus believes that such a move is not likely in the near term and that the current level of risk premiums could sustain a modest further decline in going-in cap rates. This alone is a sign of how unusual the current cycle has become.

Optionality

Both on the investor side and the user side of the market, optionality—not just one use, not just one user, not just one user profile—may be gaining favor as a way to navigate the cross-currents of volatile markets. The potential extent of such optionality is as wide as the industry itself. Says one interviewee,

the principal of a boutique investment holding company, “The developer/financier that understands optionality in their projects is the winner. Optionality will be of great value over the next generation.”

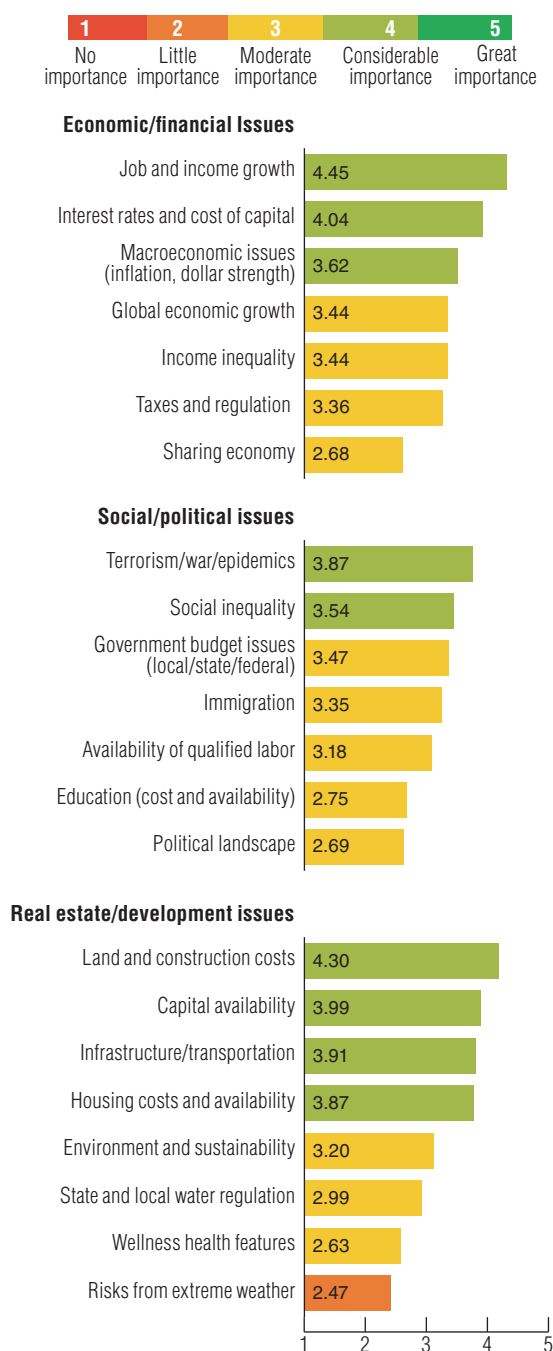
Optionality from a user standpoint allows for the adjustment of space needs to vary in terms of size, location, and use on an as-needed basis. This has already been the attraction of gig workers, sole proprietors, and perhaps very small firms to cowork space, where the provider of that space is most definitely pursuing more than “just one user.” The ultimate optionality would eliminate the need for even large firms to lock into a lease that is tied to a set amount of space in a predetermined location. And this has now happened. A Fortune 500 communications company recently entered into a deal with an international provider of shared-office space. The tenant in this case proposes to cut its occupancy costs in half within five years. In addition to the cost savings, the tenant touts the strategy to employees as promoting productivity, collaboration, and community in its noncampus administrative centers. The office provider gains a set amount of cash flow from the user, but also maintains the option of backfilling any unused space that may not be used by the core tenant that month.

Optionality gives property owners the ability to maximize highest and best use, based on immediate tenant demand. Pursuing “not just one use,” a Washington, D.C., investor/developer has launched a prototype operation in Alexandria, Virginia, where 1,000-square-foot units can be, at the tenant’s discretion, either housing, office space, or both. Common-area amenities abound, including a pet spa, sports and recreational facilities (indoor and outdoor), and even a soundproof music studio. The property is a suburban 39,000-square-foot office building that was empty at acquisition and was bought at a 65 percent discount to its original valuation. The promoter believes that dozens of such opportunities can be found across the United States, provided that zoning is flexible.

The opportunities are real, but the execution could be complicated. There are so many moving parts, as a large institutional investment manager pointed out: “We look at technology and the inroads of the sharing economy. Take office sharing: what is the cyclical risk for an office-sharing lease in a downturn? Take retail space that is shifting from chain stores to restaurants—restaurants require higher TIs [tenant improvements], as do service tenants like gyms, spas, medical uses—but what is the credit behind those leases?”

Optionality can have an impact on what could be appropriate for a market. Consider the multifamily sector, in rental apartments

Exhibit 1-7 Importance of Issues for Real Estate in 2017



Source: *Emerging Trends in Real Estate 2017* survey.

and condominiums, and the pursuit of “not for just one user profile.” The head of a REIT sees an emerging millennial market for ownership units, but one whose growth is bounded by a “keeping our options open” attitude: “Jobs are no longer careers, and millennials are not yet looking for the commitment of owning a home. They are footloose in the job market, and footloose as to roots in the community.” Developers hedge their bets by building condo quality into rentals—an option that makes sense at today’s ultra-low cap rates—knowing that market demand can shift swiftly between the two forms of product. Another multifamily option being discussed in the market is the development of projects that appeal to multiple generations—millennials and baby boomers, for example. The two groups are looking for similar amenity packages but differ on the desired size and price point of the units

Keeping your options open has never seemed to be a wiser approach.

Transformation through Location Choice

A new breed of CEOs has been turning a widespread economic development approach on its head, transforming some cities in the process. Instead of negotiating for the most generous package of public incentives possible, these business leaders take the tack that private employers can catalyze civic revivals and, in benefiting communities, can benefit their enterprise as well.

CEOs speak of the “triple bottom line” of financial, social, and environmental success. A recent study counted nearly 500 companies whose downtown location choices have been a potent factor in urban revitalization. Corporate leaders understand the impact, but also stress the self-interested economic case: attracting talent, penetrating urban markets, and the superior returns obtainable in live/work/play locations. Diverse cities, ranging from Cleveland and Oakland to San Diego and Raleigh, have benefited.

The first wave shows us what this is really about.

The two most prominent efforts with track records under their belts have been in Las Vegas and Detroit. With several years of history, we can see that successes and struggles have occurred in both ventures. Not every gambit proves fruitful and the measure of decades is more appropriate for evaluating results in revitalizing cities. Even now, however, we can see what trends are more promising and what we can learn from stumbles.

The downtown Las Vegas efforts have displayed the kind of trial-and-error experimentation that epitomizes the venture capital approach. About \$150 million has been spent on Las Vegas’s

Climate Change and Real Estate

The *Emerging Trends in Real Estate*® survey asks respondents about the importance to their business over the next year of risks emanating from environmental issues (including climate change). For the second straight year, the response was tepid. While the importance of general sustainability did increase very slightly, specific climate change implications—including water regulations, or risks from extreme weather—continue to be ranked very low compared with job growth, land costs, and capital availability (see exhibit 1-7).

Climate impacts, in creeping forms such as drought or sea-level rise, or acute forms like severe storms, can destabilize entire regions. The U.S. National Security Strategy “is clear that climate change is an urgent and growing threat . . . contributing to increased natural disasters, refugee flows, and conflicts over basic resources such as food and water.” Interestingly, immigration and conflicts (war/terrorism) ranked more highly by *Emerging Trends* respondents than climate impacts themselves.

E.T. respondents’ low ranking of most climate-related topics may be attributed, at least in part, to the questions’ one-year time frame. Nevertheless, there is growing alarm among leading investors, insurers, business leaders, and policy makers and increasing evidence of the potential impacts of climate change (or actions to address it) on real estate:

- Lloyd’s City Risk Index illuminates the financial risks of flooding in some top U.S. real estate markets:

US Cities’ GDP at Risk from Flooding

Global rank	City	GDP at risk (\$B)
3	Los Angeles	13.3
4	New York	13.1
12	Houston	7.8
16	Chicago	6.2
20	San Francisco	5.5
Total		45.9

- Zillow, looking at the impact of sea-level rise on homes across the United States, concluded that 1.9 million homes—worth a combined \$882 billion—are at risk of being physically underwater by 2100, with some markets being severely affected:

Homes at Risk from Sea-Level Rise

State	Homes potentially underwater (no.)	Housing stock affected (%)	Value at risk (\$B)
Florida	934,411	12.56	413.0
New Jersey	190,429	7.35	93.1
New York	96,708	2.1	71.0
Massachusetts	62,069	3.1	51.2
California	42,353	0.44	49.2
South Carolina	83,833	4.42	45.0
Hawaii	37,556	9.07	25.3
Washington	31,235	1.32	13.7
Texas	46,804	0.61	12.0

- These losses are not all insured or insurable. SwissRe says that there is a widening “protection gap”: “On average, only about 30 percent of catastrophe losses have been covered by insurance over the last ten years. That means that about 70 percent of catastrophe losses—or \$1.3 trillion—have been borne by individuals, firms, and governments.”
- In 2015, 195 nations signed the U.N. Paris Agreement on climate change, which sets out bold policy plans to reduce climate-change-causing carbon emissions. Real estate is a prime target for these reductions, since energy used in buildings is the largest source of carbon pollution worldwide (nearly one-third).
- Access to capital is increasingly likely to be affected by investor and lender perceptions of climate risk, too. Four hundred investors, representing \$24 trillion in assets, have pledged to “ensure that they are minimizing and disclosing the risks and maximizing the opportunities presented by climate change.”
- ULI’s *Greenprint Vol. 7 Performance Report*, *Tenant Energy Optimization Program*, and *Returns on Resilience* show how real estate leaders are taking action to address climate change and achieving bottom-line success.

ULI.org/sustainability.

old City Hall; the development of a retail store, restaurant, and entertainment venue called “the Downtown Container Park”; and the Airstream Village, where residents live in the classic trailers or in distinctive RVs called Tumbleweed Tiny Houses. Another \$150 million was dedicated to interest-free loans for startups, which have had a range of success. On the whole, the trajectory is upward. Las Vegas’s downtown is no longer given up for dead, but stands as a much more vibrant—and safer—district.

These days, it seems as though everybody wants to see what’s happening in downtown Detroit. The relocation of a company’s headquarters from suburban Livonia, Michigan, to downtown first placed 1,700 employees into Detroit’s depressed central business district (CBD). That number now stands at 12,500. With one company controlling an entire district, attention is paid to how all the pieces fit together so that great synergies are created

These were bold and inspiring moves and impactful investments; big businesses can be catalytic. What’s left to do to and by whom? A complete 21st-century urban transformation into a live/work/play environment requires special attention to “live”—that is, to housing density, since the “work/play” components depend upon a residential base for expansion and growth. These, of course, are the same key ingredients of success that are transforming 18-hour cities across the United States.

For those places still struggling, in the meantime, there is great opportunity in the existing inventory of vacant land, much of which is held “in rem” by the city. A portion of this could be placed in a land trust for future development, which would enable future affordable housing to be developed without future land price inflation. Developer-investors could hold shares in the

trust, and local banks with Community Reinvestment Act obligations might be able to provide financing.

Collaboration with city government and the experienced development community can promote a more unified and long-lasting successful approach. The longer-term test will be the degree to which the initial corporate/government collaboration acts as a catalyst for other investment. The object is not to create a 21st-century “company town.” It is to redevelop a diverse and vibrant urban center.

Here is where leadership supplies what impersonal market forces may neglect or where they may go more slowly. The genius of leadership is, in the words of George Bernard Shaw, “to dream things that never were, and ask, ‘Why not?’”

Recognizing the Role of the Small Entrepreneurial Developer

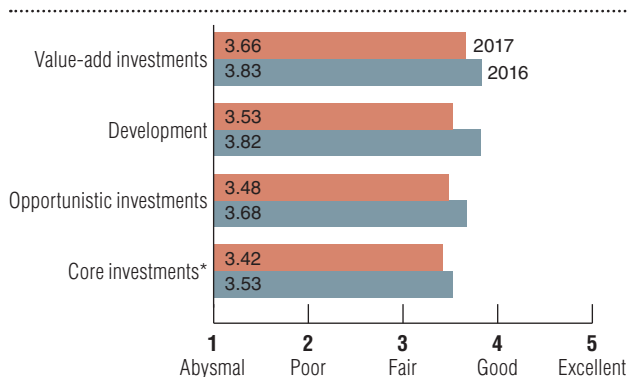
Tall buildings, “starchitect” projects, the upper-echelon market. It is human nature to focus on the properties that capture the glamour of development. It is likely that the headlines and prizes will always gravitate to the biggest and brightest new buildings. At some point, however, we will probably look back and find that problem-solving innovation emerges from the small-scale project developer.

Today’s environment seems to conspire against the small developer, with risk-averse capital favoring the most expensive locations and lenders timid about advancing project funds lest their regulators pounce. As one southeastern developer put it, “There aren’t 30-year-old developers anymore because capital is too hard to come by.”

Bigger is not always better. Nimbleness and local knowledge are not commodities, and several factors suggest that small and midsized developers have an increasingly significant role in the industry.

First of all, consider the structure of the building construction industry. In 2015 (the most recent year for which figures are available), there were 46,843 firms in the commercial property building industry whose employee count was less than 20 per firm. That is 86.5 percent of all the firms in the industry. For firms focused on the multifamily segment, the numbers are even more skewed to small companies, at 91 percent of firms. When it comes to total jobs, however, employment is well distributed in all establishment sizes up to and including the 100-to-249-employee category. That distribution—share of total development industry jobs by size of firm—has stayed remarkably

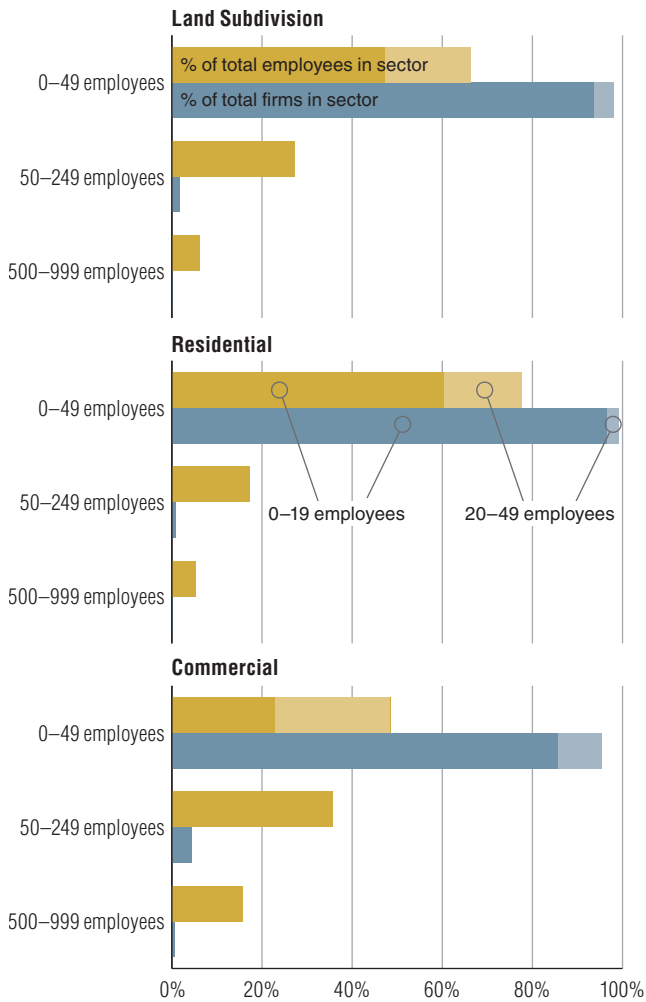
Exhibit 1-8 Prospects by Investment Category/Strategy, 2017



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

Exhibit 1-9 Profile of U.S. Development Firms, by Size of Firm and Sector, 2015



stable since 1990. Bottom line: commercial and multifamily building in the United States has a broad and very solid base of small and midsized providers.

These smaller firms are capable of addressing a range of current needs: affordability for users across the property types, infill in older neighborhoods, and attention to smaller markets of lesser interest to the larger firms.

With construction costs a crucial issue, smaller developers who build product on sites outside the core CBD can create new offices, stores, and housing less burdened by extreme land cost inflation. "Contextual zoning" encourages flexibility of use and compatibility with existing neighborhoods, and the small

developer is likely to be alert to manageable infill opportunities with more modest project size, both in the cities and in older mixed-use suburbs.

While money center banks are finding it difficult to add new development loans to their books, some of the void is being filled by regional and community banks. These are the institutions that smaller developers have long depended upon, banks that are experienced in local market conditions and that have the capacity to underwrite smaller deals skillfully. As one developer remarked, "They like the fact that it's small scale, which mitigates the lease absorption risk."

In *Emerging Trends*, we often bring our spotlight to the large-scale trends. But much change is incremental, the sum of many contributors whose efforts, taken together, can make a huge difference. The enormous number of firms composed of 20, 50, and 100 employees provides the industry with an ideal laboratory for entrepreneurial innovation.

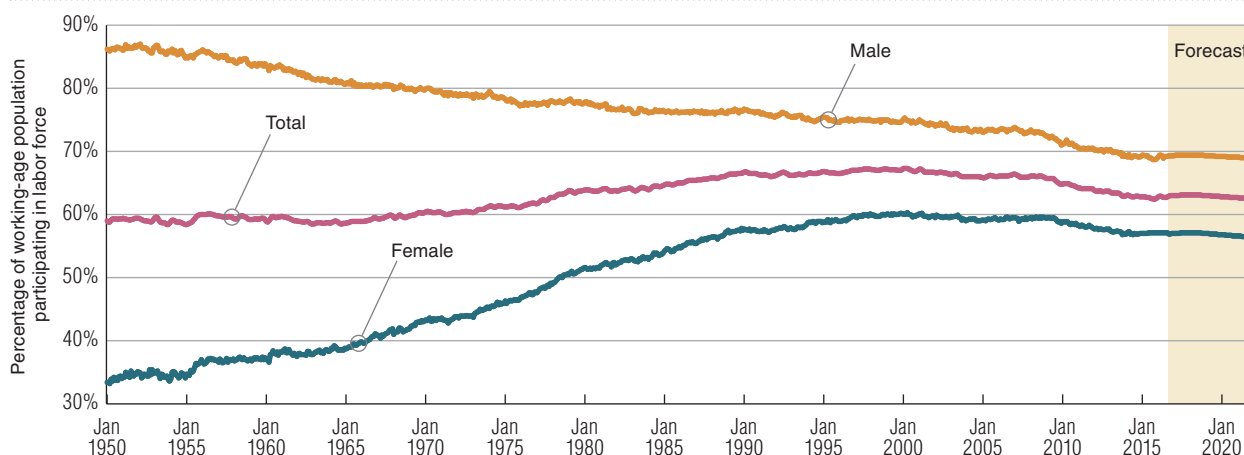
Labor Scarcity in Construction Costs

The crossover point where more baby boomers are retiring than millennials entering the labor force is upon us. A Bureau of Labor Statistics (BLS) analysis released in December 2015 projected labor force change for the ten years ending 2024 as being only 0.5 percent per year. *Emerging Trends* has sketched the big picture in previous editions. The key change in the population cohorts from 2014 to 2024 looks like this: the number of Americans in the 25-to-34-years-old age group, the prime early-career working years, will be up by 3.2 million; meanwhile, the 65-to-74-years-old age group, those most likely to exit the labor force in retirement, will be up by 9.4 million. Between the boomers and the millennials, gen Xers are solidly in their mid-career years, but this is a smaller cohort—another reason the labor pool is somewhat shallower.

The driving factors are age demographics and the labor force participation rate, and the two are related.

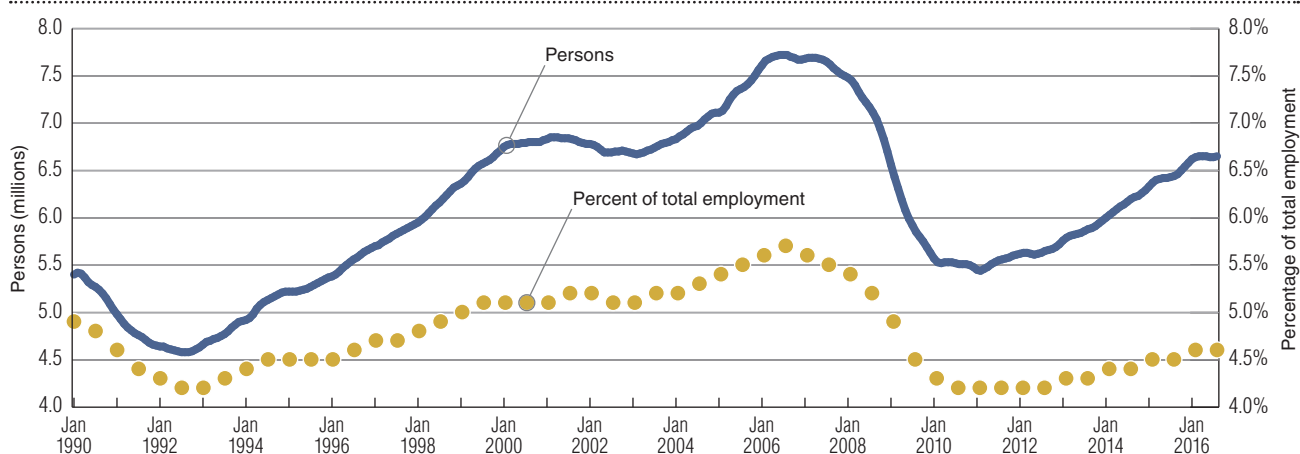
Many believe that the labor force participation rate—the percentage of the civilian population 16 years or older who are working or are actively looking for work—has dropped as one of the consequences of the global financial crisis. However, the participation rate peaked in 1997 at 67.1 percent and has been falling since 2000. As of July 2016, it stood at 62.8 percent. For men, the rate has been in steady decline since the late 1940s. Female labor force participation peaked at 60.0 percent in 1999 and has been declining for a decade and a half. Obviously, a lot more is happening than just displacement stemming from the Great Recession.

Exhibit 1-10 Percentage of U.S. Working-Age Population Participating in Labor Force, 1950–2020



Sources: U.S. Bureau of Labor Statistics, "Current Population Survey"; Moody's Analytics forecasts.

Exhibit 1-11 U.S. Construction Employment, 1990–2016



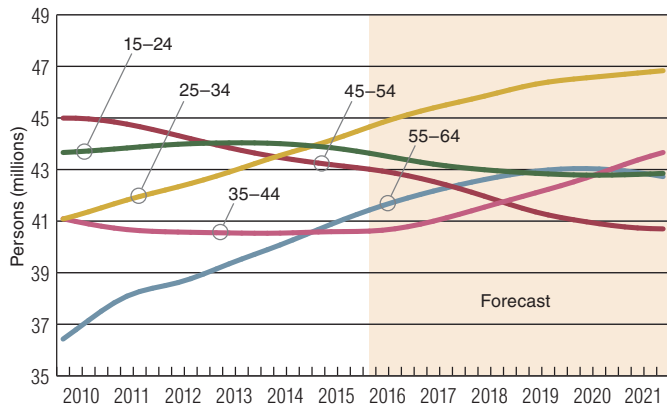
Source: U.S. Bureau of Labor Statistics, "Current Employment Statistics."

As more young people seek higher education, they remain out of the workforce for a longer period, putting downward pressure on labor force figures. As more of the baby boom generation moves into the age-65-plus cohort, its participation rate also drops. BLS projections call for the overall participation rate to dip to 60.9 percent by 2024.

We do not have to wait to feel the effects on real estate. Our interviewees are telling us that they feel the pinch right now, and they expect it will get tighter over time. A multifamily housing specialist says, "Labor availability and shortage will continue to have a significant impact on the market. The shortage ranges from laborers to more skilled labor. This is pushing up the development time on projects and is cutting into returns.

The shortage of labor has slowed the number of units being delivered to markets and may have helped prevent overbuilding in 2016."

Executives for a firm intermediating offshore wealth into the U.S. real estate market note that they see "five-to-seven-month construction delays due to labor shortages, while costs are inflating." An institutional investor from the Midwest adds that rising costs push apartment development toward luxury units: "We can't afford not to develop apartments at the high end due to a run-up in construction hard costs. The run-up in labor outpaces construction materials' costs, though, especially in the locations we find attractive, where the land basis has also gone up considerably."

Exhibit 1-12 Age of U.S. Working Population, by Cohort and Year

Source: U.S. Census Bureau.

ULI district council focus groups convened for *Emerging Trends® 2017* (see chapter 3) identified labor shortages as an issue in markets as diverse as Atlanta, central Florida, Cleveland, and Nashville. Large metropolitan areas such as Denver, Phoenix, and Orange County, California, have seen double-digit construction job gains in the past year, depleting the remaining pool of workers.

The causes of the labor shortage are many. One West Coast consultant suggested that the clampdown on Mexican immigration alone reduced the labor pool by several hundred thousand construction workers. As development seized up after 2008, others pointed out, workers moved to the booming opportunities in the oil and gas industries. (Reports from the energy industry indicate that workers let go in the oil and gas slump are typically migrating to fields like alternative energy, or are enrolling in community college for retraining.) Skilled craft workers are retiring more quickly than they can be replaced. Project managers are also in short supply. As of April 2016, there were over 200,000 unfilled job openings in building construction, according to the Bureau of Labor Statistics Job Openings and Labor Turnover Survey (JOLTS).

So we have an “emerging trend” identified in past editions now biting business in a painful way. What are the next moves on the chess board?

In a way, this is a real opportunity for the real estate industry to lead a way toward solutions. Real estate in all its guises—construction, property management, brokerage, and even finance—offers ample opportunities to create entry-level jobs that are not “dead-end jobs,” but the first step on a career path.

Given the exceptionally high cost of a college degree, many young people might opt for a blue-collar occupation in the trades if an upward path to greater responsibility and commensurately greater income were foreseeable.

While the first moves might seem counterintuitive to many—increased public funding for vocational/technical education, support for apprenticeship programs that are typically administered by labor unions, funding for public infrastructure projects that develop entry-level skills—taken together they make a starting point for attracting younger workers of all stripes to the business. In addition, immigration reform that would encourage, not discourage, blue-collar workers is vital. America’s labor force needs replenishment at all levels, not just the high-tech programmers and software engineers who now get the plum H1-B visas almost the day they become available.

Housing Affordability: Local Governments Step Up

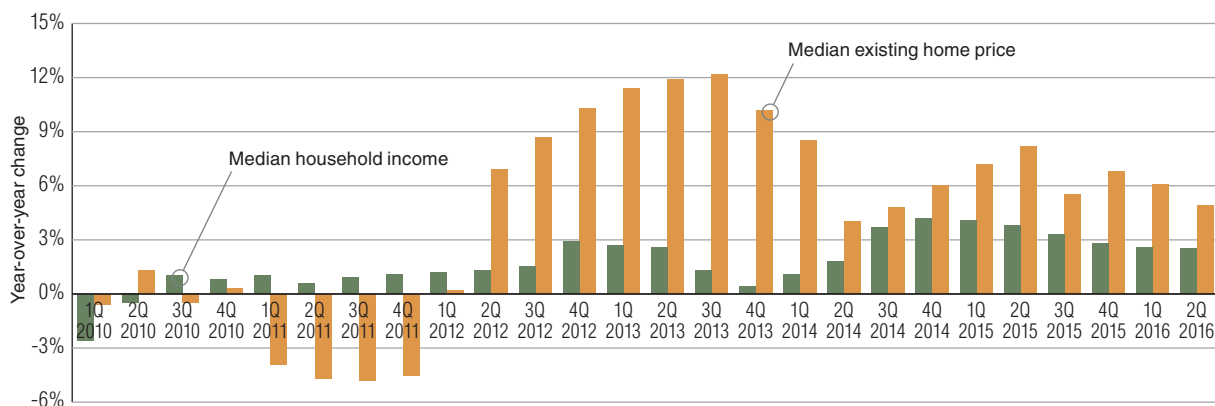
Nowadays, the affordable housing conversation makes a distinction between “big-A” and “small-A” affordability. Big-A affordability refers to housing for low-income households and looks at familiar subsidy programs such as Section 8, the low-income housing tax credit, and a panoply of state and local programs seeking to address 12 million households paying more than 50 percent of their income for housing.

Small-A affordability concerns recognize that, in many markets, middle-income households—those in the second to fourth quintile nationally, averaging between \$31,000 and \$87,000 in yearly income—are “housing stressed,” spending more than a third of their income on housing costs. An August 2016 report from the Washington, D.C.-based National Association of Home Builders (NAHB) indicated that just 62 percent of all new and existing homes sold in the second quarter were “affordable” to the median U.S. household. With home prices rising at a 5 percent annual rate—more than twice as fast as incomes in recent years—and apartment rents on pace to grow 4.5 percent in 2016, the level of stress will likely increase in the near future.

Housing costs and availability were rated by *Emerging Trends* survey participants as being “considerably important” issues for real estate, increasing in importance this year when compared with the “moderate importance” given to future home prices and affordable/workforce housing in our survey a year ago.

The related strain on the social fabric is getting high-level attention. As one longtime CEO of a publicly traded company said, “We’re not paying enough attention to affordable housing, and I

Exhibit 1-13 Change in Median Existing Home Price vs. Change in Median Household Income



Sources: U.S. Census Bureau; National Association of Realtors.

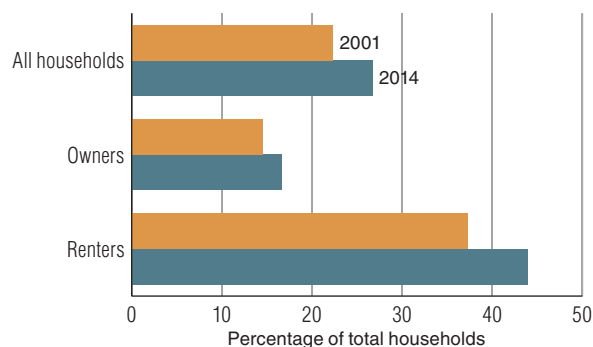
don't mean low-income or government-subsidized. Just regular rents. No new buildings are providing that kind of product. Time will tell if that's going to come back to haunt us. Not everybody makes \$75,000 to \$100,000 a year."

Affordable housing may be the real estate industry's vulnerable flank on the chessboard. Or it might be a strategic opportunity to move creatively toward a large and growing market, with incremental profits rather than large windfalls.

Local governments are not waiting on the sidelines; they are moving more aggressively than at any time in memory to incentivize—or compel—the private sector to meet worsening housing affordability needs. A handful are pushing development impact fees and even considering rent control. The most widely used approach by far, though, is an old idea (dating to the early 1970s) that has roared back to life: inclusionary zoning. Through such zoning, cities require or encourage developers to create below-market-rate rental apartments or for-sale homes in connection with the local approval of a proposed market-rate development project.

New York City has the nation's most far-reaching policy. The mayoral administrations of Michael Bloomberg (2002–2013) and Bill de Blasio (2014–present) have used inclusionary zoning to meet affordability targets, recognizing that the sharply upward movement of land prices compromise affordable housing feasibility without some form of public incentive. San Francisco, another booming economy, passed a ballot initiative to expand its requirements for affordable units in new developments from the previous 12 percent to 25 percent of the project. However, feasibility studies have suggested an 18 percent requirement, which is likely to be implemented.

Exhibit 1-14 Moderate and Severe Housing Cost Burden on Households with Annual Incomes below \$50,000



Source: Joint Center for Housing Studies of Harvard University tabulations of U.S. Census Bureau "American Community Survey" data.

Note: Moderate burden is defined as housing costs of 30 to 50 percent of household income; severe burden is housing costs of more than 50 percent of household income. Households with zero or negative income are assumed to be severely burdened; renters paying no cash rent are assumed to be unbursed. Income cutoffs are adjusted to 2014 dollars by the Consumer Price Index for urban consumers for all items.

Proposals to put inclusionary zoning in place or strengthen existing policies are advancing in Atlanta, Baltimore, Detroit, Los Angeles, Nashville, Pittsburgh, Portland, Seattle, and Washington, D.C., among other cities. Recent research by the ULI Terwilliger Center for Housing found that the most effective inclusionary zoning policies provide developers with flexibility and an array of incentives to mitigate the policies' potential negative impacts.

Redevelopment efforts also are affected by affordability issues. Jurisdictions frequently frame their objectives as "creating and preserving" affordable housing. Montgomery County, Maryland, is trying to develop a program for downtown Bethesda whereby

older apartment buildings could sell excess zoning capacity (unused floor/area ratio [FAR]) as “priority sending sites” in exchange for committing to retain 30 percent of their units at targeted affordability rents. California legislation permits communities to allow higher densities in exchange for meeting affordable housing objectives.

Similarly, in cities of lesser density and in older suburbs, planning officials can work with a new breed of players pursuing strategies to maintain or only modestly increase current rent levels in the existing rental housing stock. By making only the most necessary improvements and having laser focus on property management, these firms deliver 100 percent occupancy and competitive current income returns, while helping meet a pressing social and economic development need. The strategy is especially effective in markets where the spread between Class A and Class B/C apartment rents is fairly wide.

Population increase, upward pressure on land and building costs, and persistent wage stagnation challenge government and the private sector to devise a menu of solutions. The trend to meet that challenge is gathering momentum. This is a “long-game” conundrum whose immediate difficulties are prompting an array of responses now.

Gaining Entry beyond the Velvet Rope

Trends do not always go hand in glove with each other; there can be cross-currents. When one is dealing with such fundamental issues as jobs, housing, and public policies, it is not surprising that disparities and disagreements come with the territory. But at a time when a number of markets are struggling with a shortage of affordable housing, opposition to potential solutions may be on the rise. And it may seem that there has rarely been a time when divisions have been more in evidence. Politics has brought this into sharp relief, but the fault lines were there already. Some *Emerging Trends* interviewees see this as the further progress of “NIMBYism,” now often more easily broadcast and perpetuated via social media campaigns. But where the “not in my backyard” phenomenon largely represented a resistance to specific development, it appears that we now must recognize a trend that might be called “the velvet rope.”

At the entrance to fashionable nightclubs or red-carpet opening nights, access is controlled through use of velvet ropes on brass stanchions. Bouncers let only select individuals gain entry—the others have to stand and look in from the outside. Two points should be made about this velvet rope in the context of urban economies and real estate.

The State of the Suburbs: Residential Development Opportunities and Challenges

In the coming decades, U.S. suburban housing markets are poised to maintain their relevance and predominance. A new analytic framework for classifying suburbs reveals significant differentiation between cities and suburbs and wide variety among different types of suburbs in terms of housing characteristics and conditions. These differences could substantially affect future residential demand and development in every major market in the United States. Key insights include the following:

- **The United States remains a largely suburban nation.** In America’s 50 largest (and most urbanized) metropolitan areas, suburbs account for 79 percent of the population, 78 percent of households, 32 percent of land area, and—despite popular and media perception—75 percent of 25- to 35-year-olds.
- **Suburban growth has driven recent metropolitan growth.** From 2000 to 2015, suburban areas accounted for 91 percent of population growth and 84 percent of household growth in the top 50 U.S. metro areas.
- **The large majority of Americans work in suburbs, although job growth has been more balanced recently.** As of 2014, 67.5 percent of employment in the 50 largest metro areas was in the suburbs. Between 2005 and 2010, employment in suburban areas remained stagnant with 0 percent growth, while it increased by 8.2 percent in urban areas. But between 2010 and 2014, jobs increased by 9 percent in suburbs versus 6 percent in urban areas.
- **American suburbs as a whole are racially and ethnically diverse.** Fully 76 percent of the minority population in the top 50 metro areas lives in the suburbs—not much lower than the 79 percent of the total population in these metro areas.
- **The variety of types of suburbs creates a wide range of development opportunities.** The report identifies development trends, issues, and innovative product examples in five distinct types of suburb within the 50 largest metro areas: “Established High-End,” “Stable Middle-Income,” “Economically Challenged,” “Greenfield Lifestyle,” and “Greenfield Value.”

Housing in the Evolving American Suburb, RCLCO and the ULI Terwilliger Center for Housing, November 2016.

The first point has to do with the widening income gap. Just as the downtowns of cities “hollowed out” in the second half of the last century, so too the middle class has been hollowing out. Income inequality is high for cities like New York, Los Angeles, and San Francisco. However, the level of inequality is high and *increasing* in other metro areas, including Miami, Charlotte, Boston, and Atlanta. For these areas and many others, the velvet rope means increasing income segregation.

Secondly, exclusionary forces are equally alive in suburbs and cities.

Suburbs grapple with their own velvet rope dilemma. Analyses of millennials’ preferences have identified density, diversity, walkability, and transit accessibility as factors in location choice for this 83 million–person demographic cohort. And, as we have pointed out in previous editions of *Emerging Trends*, these factors are equally attractive in the suburbs as in the densest urban core. The issue is that to create these amenities and keep neighborhoods affordable often requires changes to traditional suburban development. Yet the increase in demand for land use attorneys and consultants by communities resisting change, the ease of assembling opposition to planning changes in the era of social media, and other forms of opposition to development indicate the degree to which some suburbs are flat out resisting the very attributes demanded by potential new residents.

This not only hobbles attempts to restore the residential attractiveness of suburbs, but also impedes the ability to keep neighborhoods affordable.

In cities themselves, the very characteristic of density magnifies the impact of change. Most often, the debate is not between what’s good and what’s bad. It is a question of how the new connects with the old. The urban velvet rope would freeze time in favor of the status quo. Real estate development encounters this directly. New building design can ignore neighborhood history and context, or it can seek to bring that history forward organically while meeting the changes in the city’s makeup. It is not only real estate, though. Community organizations can seek to keep local demographics static, or can find ways to make diversity work in the neighborhood’s favor by discovering the vibrancy in multiculturalism—in the food experience, in ethnic festivals, in the upward striving that has been the hallmark of new, opportunity-seeking residents. Government, business, and the not-for-profit sector can go either way: rallying to keep things “as they have always been,” or helping shape a future that is really continuous with the past, recognizing that cities have never been stuck in time, but have always been organisms that have grown and prospered by adaptation.

There is, therefore, a significant cultural change that requires careful attention. Where “exclusivity” was often seen as a critical selling point for communities in the past, it is now being eclipsed by “inclusiveness” as a social value. The velvet rope is already an anachronism. Communities seeking to retain economic, ethnic, racial, or other barriers as a “de facto” matter are engaged in a rear-guard action, contrary to their own self-interest.

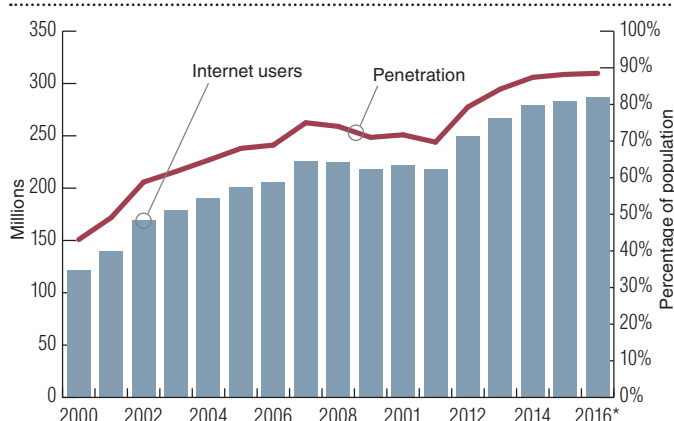
The Connectedness of Cities

There are now more objects than people connected to the internet, a phenomenon known as “the internet of things.” Point-of-sale registers communicate with warehouses. Smart phones have apps to search stores for the best prices. Sensors embedded in roadways reroute logistics paths. HVAC systems are automatically controlled in real time.

Known by the shorthand “IoT,” the estimate for internet-connected devices hit 10 billion in 2015 and is projected to more than triple to 34 billion by 2020. As always, the relationship between advancing technology and the real estate industry is a complicated one. But the evidence suggests that a market’s trend toward technological advantage is correlated with superior real estate performance.

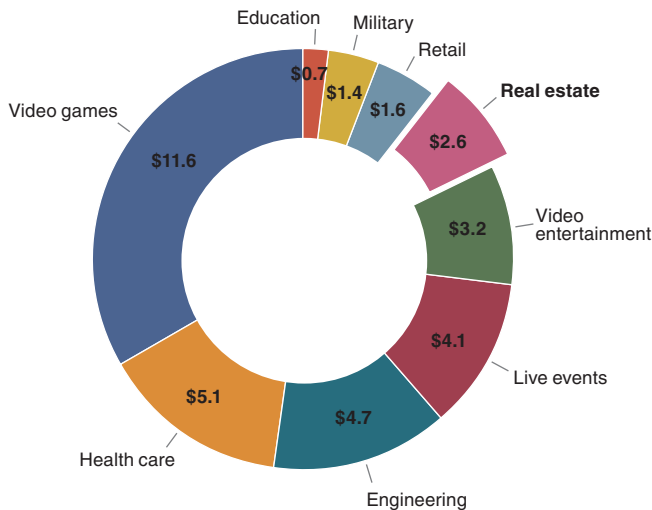
The seven “smartest cities” in the United States are listed as Seattle, San Francisco, Boston, New York, D.C., Portland, and Chicago in a ranking from Co.Exist, an online publication of the magazine *Fast Company*. Smart cities are defined as those gathering data from devices and sensors embedded in roadways, power grids, buildings, and other assets. They use

Exhibit 1-15 U.S. Internet Penetration



Source: International Telecommunication Union (ITU), World Bank, and United Nations Population Division.

*Data for 2015 and 2016 are estimates.

Exhibit 1-16 Potential 2025 Revenue from Virtual and Augmented Reality (\$ billions)

Source: Goldman Sachs Global Investment Research

an integrated communication system to share this information instantaneously. Software extracts information and discerns relevant patterns for users.

Smart cities match well with the list that *Emerging Trends* identifies as top markets for investment and development (see chapter 3). A 2016 Verizon report on IoT highlights tech applications such as street lighting and parking patterns analysis being put in place by cities including San Diego, Jacksonville, and Charlotte. Taking another approach, IoT Analytics has praised Los Angeles, San Diego, and Denver for innovations ranging from wearable devices for health and security to widely distributed wi-fi accessibility.

The key link between technological advances and real estate investment performance is productivity. IoT can upgrade efficiency in several ways. Deploying sensors throughout the city helps save time and money by targeting capacity use of transportation systems, lighting, overall energy demand, parking availability, and even necessary pothole repairs. Moreover, IoT infrastructure can help buildings control operating expenses for basic services like power, water, and life safety. Density, in the form of a concentrated market with limited “last mile” requirements, favors 24-hour and 18-hour locations in IoT adoption.

That doesn't mean that smaller places need be left behind. Cities with the highest internet adoption rates correlate with advanced educational attainment. The Denver suburb of Centennial, for instance, has the highest rate of internet con-

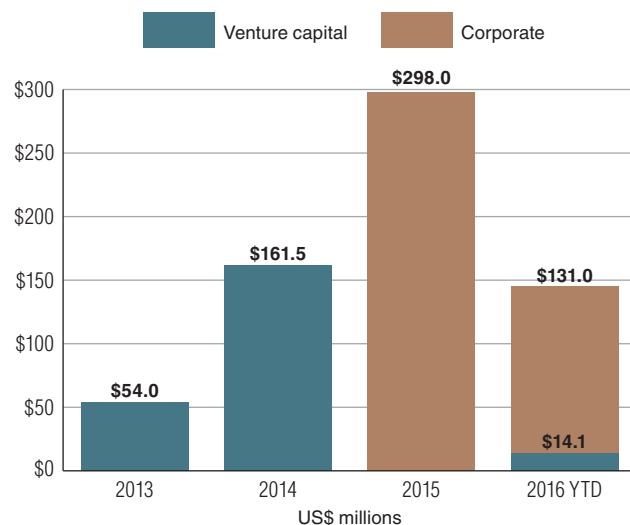
nection of any U.S. municipality, at over 96 percent. Cary, North Carolina, in the Research Triangle area, had a similarly high rate. Colleges promote high connectivity rates, as seen by top-ten scores for College Station, Texas, and Tempe, Arizona. Among larger jurisdictions, San Jose, San Diego, and Seattle approach the 90 percent mark for household internet use. However, Detroit, Hartford, and other cities struggling with poorer urban neighborhoods have low technology adoption rates, a digital divide that mirrors the income divide for such places.

Ready for Augmented Reality?

Who would have thought that a 1990s video game like Pokémon would grab headlines, prompting nearly 10 million people to get out and search for imaginary video characters in 2016? Furthermore, who would have thought that this would set the imagination of serious real estate owners and operators afire?

“Augmented reality” (AR) is not a brand-new phenomenon: the technology has been available since 2012. AR projects or overlays a digital image on the physical world itself. More than that, the image can be modified by the instruction of the users. Day and night views, for example, can be generated, as well as interior or exterior simulations.

Brokers have been able to use virtual tours for quite some time now, but AR brings the quality to a much higher level. Prospective purchasers or tenants can customize the experi-

Exhibit 1-17 Venture Capital and Corporate Investment in Blockchain

Source: CBInsights.

ence by visual “what if” alterations. As a marketing tool, it is a definite enhancement.

But what “Pokémon Go” has demonstrated is that AR can motivate people to actually get out and visit locations, even properties they had not planned in advance to visit. Since real estate, both residential and commercial, relies upon the consumer experiencing a property—almost always in a site visit—before committing to a transaction, stimulating such a visit by a technological lure can be extremely powerful.

Many observers anticipate that AR will meld the “clicks” experience with the “bricks” of the stores themselves. Customized “lures” can bring shoppers to the stores, using smart phones

with activated Global Positioning System (GPS) technology. If retail real estate is trending more and more toward “experience” and “entertainment,” AR would seem to be a natural fit.

Other now-feasible AR applications range from closer collaboration of developers with architects and designers to property operation disciplines aimed at reducing error rates. This is very much a “big data” technology that will require the development of new data centers, well situated in relation to end-user markets, together with the storage and infrastructure supports needed to sustain the applications.

This is starting now, not in the far-off future. Experts expect \$2.6 billion in real estate applications by the year 2025. The opti-

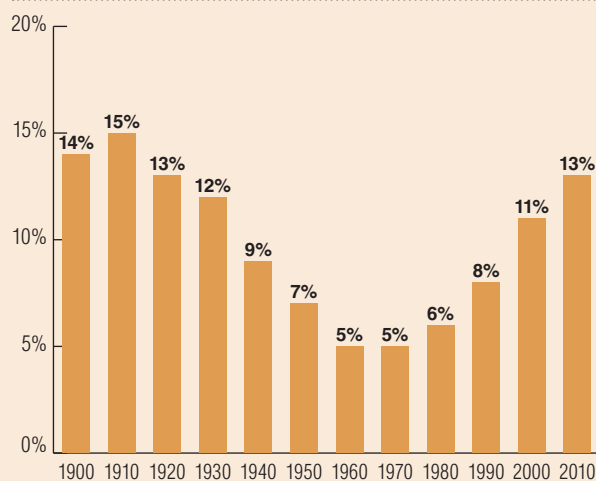
Women, Immigrants, Younger and Older Workers, Retirees: Reshaping Community Building for the Next Ten Years

Rising numbers of female executives, affluent immigrants, younger and older workers, and retirees will have a profound influence on community building in the United States over the next ten years.

Key trends related to demographics and household formation that will affect real estate investment and development through 2025 are as follows:

- **The continued rise of working women:** Women now earn 58 percent of all college degrees in the United States, and they earn more than their spouses 38 percent of the time. By 2025, the number of women in the workforce will rise to 78 million, 8 million above the level in 2015.
- **A rising number of affluent immigrants:** Immigration will account for more than half the U.S. population growth by 2025. Contrary to some perceptions, many immigrants coming to the United States are highly educated middle- and upper-class families with substantial purchasing power.
- **The graying of America:** By 2025, 66 million Americans will be over age 65—which is 38 percent more than in 2015. This will create lucrative opportunities for customer segmentation, given the widely varied needs and lifestyles of younger retirees versus older ones.
- **Young adults driving household formation:** 18- to 27-year-olds will lead the majority of new household growth over the next decade, despite forming households more slowly than their predecessors. They are expected to create 14 million households by 2025.

Foreign-Born Share of U.S. Population



Source: John Burns Real Estate Consulting LLC calculations of U.S. Census Bureau Decennial Census.

Grouping the U.S. population by decade born, rather than by generation, provides insights into behaviors shaping trends, with the most influential (and largest) groups being the following:

- **Innovators**, born 1950–1959, who led a technology revolution;
- **Equalers**, born 1960–1969, who achieved more equality between women and men in the workplace;
- **Balancers**, born 1970–1979, who led a shift toward a better work/life balance;

mists see unlimited opportunity, of course. Others may worry about how AR, as well as the internet of things, will deal with a world where cybersecurity is of increasing concern and where “security” often is only developed once hackers have exposed vulnerabilities in very nasty ways. The probability: accelerating change, despite increased risks.

Blockchain for 21st-Century Real Estate

If a sense of immediacy about augmented reality exists, the impacts of blockchain technology are more about the long game for real estate. Blockchain record keeping is perhaps best known from the financial industry and the digital currency, Bitcoin. Bitcoin was introduced in 2009, and about 15.8 million

Bitcoins are now in circulation (of a capped total of 21 million that can be issued).

Blockchain is the record-keeping technology functioning as the encrypted register of digital data, a record that is extremely difficult to alter once a transaction has been logged. Proponents argue that this makes it ideal for tracking high-value assets, creating an “unerasable history.” Some large banks and exchanges have been experimenting with blockchain, and an argument exists that once financial firms deploy a technology, others must follow if they want to maximize the usefulness of financial services.

- **Sharers**, born 1980–1989, who led the transition to the sharing economy;
- **Connectors**, born 1990–1999, who led 24/7 wireless connectivity; and
- **Globals**, born 2000–2009, who effortlessly think and interact globally.

Among the trends shaped by these groups:

“Surban” developments will replace shopping centers.

More retail stores will be transformed into places that sell experiences, rather than goods, and more development will combine housing and retail to satisfy consumer demand for places that offer convenient, car-free shopping. An 86 percent surge in household formations in the coming decade will drive retail activity, particularly purchases by renters, who will represent 58 percent of the net new number of households.

“Surban” refers to communities that combine the best of urban and suburban living.

Suburban office demand will return. As Sharers move into more senior management roles and start families, many will move from urban cores to the suburbs to live in areas with good schools, but which are also near employment hubs and entertainment and recreational amenities. They will be willing to share space and work remotely. Women earned more than half of the college degrees obtained by Sharers; as a result, female executives will play a stronger role in office space selection.

Housing rental rates will surge over the long term. The sharing economy’s de-emphasis on ownership will be reflected in soaring demand for rental units. Well over half of the 12.5 million net new households created over the next decade will rent, including those who have never owned, and those making the switch from owning to renting as they age. Homeownership will decline, with the national rate anticipated to be 60.8 percent by 2025, the lowest point since the 1950s. As more Innovators join the already large number of retirees, competition for workers will push up wages, contributing to a favorable environment for rent increases.

Southern suburban migration to continue. The southern regions where 42 percent of Americans currently live will receive 62 percent of the household growth in the United States over the next decade. Demand will continue to rise for affordable rental housing, townhomes, and small-lot detached housing, as Connectors join Sharers in raising families.

Municipalities will take a stronger role in encouraging successful growth. Local government redevelopment investments have revitalized urban and suburban areas, and the most astute suburban—or surban—municipal leaders will continue changing zoning regulations to encourage pedestrian-friendly mixed-use development that accommodates the preferences and needs of new households.

Demographic Strategies for Real Estate, John Burns Real Estate Consulting.

Adoption of blockchain is in its infancy. Visionaries suggest it has the potential to be a powerfully disrupting technology for real estate. Real estate is a document-intensive business, and the distributed blockchain ledger could consolidate mortgage, escrow, or deed transfer record-keeping, and even allow for automated accommodation of contingent events in the terms of contracts. Blockchain records could be used as a basis for the creation of derivatives as well. Some see blockchain records and “cryptocurrencies” as creating greater crowdfunding liquidity, and expanding the reach of the sharing economy.

How much of this is hype, and how much of it is a hint of a future already on the way?

It is impossible to know at this point. It does seem safe to expect that the overthrow of the range of real estate services, record-keeping, and payment protocols will proceed at least as slowly as the advent of the paperless office. However, who can deny the impact that other technologies have already had on the way the real estate industry does business? And who would have thought that 10 million people would have taken to the highways and byways in 2016 to track down immaterial images of Pokémon characters like Squirtle, Charizard, and Wigglytuff by following instructions streamed to smart phones?

Expected Best Bets

1. Be a problem solver in the middle of the capital stack.

How do you bridge the obvious disconnect between operating in a risk-off environment and seeking to optimize yield? The deleveraging witnessed in the post-global financial crisis era has opened opportunities in the middle of the capital stack, and a variety of players—institutional money managers, private equity, REITs—are moving toward that opportunity. Between lenders keeping LTVs low and senior equity seeking to manage the amount of capital they have at risk, a need exists to secure either subordinated debt or preferred equity to make deals fly.

By far, the choice right now is preferred equity. Lenders’ regulators strongly tilt toward more equity, and capital sources think it’s better to hold the equity position in case of future trouble, rather than find themselves members of a creditors’ committee and subordinate to a senior lender.

The real estate niche where such capital is most needed is in development, since high-volatility real estate lending most often means land and construction financing. With the generally low levels of building activity, preferred equity providers can be

pretty selective about the market and property type risks they choose to take on.

Condo construction is underfunded nationally, except in a few markets like Manhattan. Preferred equity players may see some cycle protection for condos in their potential to shift to the rental market—where demand looks to be substantial for several years—if the ownership market is hobbled by rising mortgage rates or a sudden surge in development. Even a market as troubled as Miami condominiums made it through the last cycle by accessing the renter pool.

2. Take advantage of changes in construction technology.

The building industry has a reputation for resistance to change. By and large, we still erect structures using materials—concrete, lumber, steel—as we have for centuries. The deployment of those materials also takes readily recognizable forms. Concrete may be precast or poured in place. Low-rise development may use block-and-plank construction that is little different from 19th-century techniques. High-rise steel frame and curtain wall buildings have been around since the first generation of skyscrapers.

With costs soaring, however, efficiency imperatives are accelerating technological change. The learning curve gives advantage to early adapters, and construction workers are as likely to be consulting computer tablets as they are stretching out tape measures. Building information management is already the norm; drones are, too. Technology is evolving rapidly and will advance further, even in small shops, with job sites featuring integrated software systems, data mobility, and real-time communications. With delay costly, keeping the project timeline is ever more valuable.

Off-site construction—prefabricated or modular building—is working through its growing pains. Factory-built housing has been around for quite a while, but adapting the concept to high-rise projects is now on the docket. Fabricating whole segments of buildings and trucking the completed units to sites has advantages in cost and speed, in part because weather is less of a factor and workforce supervision is easier. As three-dimensional printing becomes more sophisticated, this technology will no doubt be deployed largely in controlled environments as well.

Quality control and the ability to scale up modular construction remain issues. One high-rise apartment tower in Brooklyn was sharply criticized for water damage, misalignment, and tolerance errors in assembling factory-built modules on a site just a mile or so away. Of course, no new technology debuts perfectly,

and real estate development is an especially public event. First-generation missteps are not likely to deter further use of integrated components. Watch such development closely.

Medical facilities are particularly expected to go modular because the “built-in” components are so specialized and technically complex. One case study in the Denver area showed a 72-day acceleration in scheduling. While there was a 6 percent premium in direct costs, millions in indirect costs were saved. From the community’s perspective, too, the reduction in congestion, noise, and dust at the site was important—a not-insignificant advantage for project sponsors.

3. Securing the “last mile” advantage in the era of e-commerce.

Logistics systems have been thinking big for the last decade or more: Panamax container ships. Tandem trailers behind semis. Monster distribution hubs with ten acres or more under one roof. And a constant push to be the dominant provider of goods and services, with the expectation that oligopoly will be the way that e-commerce shakes out before too long.

But what about the customers?

Getting goods to the warehouse does not make much difference to the consumer. It is getting the goods to the doorstep that counts. That floods the streets with panel trucks. From a real estate standpoint, having an in-city distribution facility is the very antithesis of the land-hungry exurban warehouse. Promise next-day delivery and you might be able to get away with an out-of-town fulfillment center. Promise *same*-day delivery and you had better be a lot closer.

Customers care about cost, transparency, speed, and frictionless transactions. If you are committed to delivery within a few hours, you need to have inventory in places with high densities. Fortunately, that is the very description of the most profitable markets for e-commerce, so there is a real alignment of interests within a ten- to 30-minute drive of city centers. But that also indicates multistory facilities with between 20,000 and 70,000 square feet. Fortunately, that is what the “old” industrial configuration was like. For many years, such buildings were considered irretrievably obsolete. Now they have found new life.

The rest of the logistics chain still counts. Mega-warehouses will continue to play an important role. We might also see some interesting transformations of underused B and C shopping centers into last-mile distribution points. E-commerce, long

viewed as a “disrupter” for real estate, is gradually emerging with a symbiotic relationship beyond the first clicks-and-bricks rapprochement. Stay tuned for further changes ahead.

4. Figuring out the next “adjacencies” in paths of growth.

For most alert observers, the submarkets in any metropolitan area that are “hot” today are usually easily identified. But once a location is hot, so are prices. Competition is fierce and returns get driven down.

What is an opportunistic investor to do?

Some have suggested that looking for the next neighborhood or suburb in the established path of growth is the key to getting ahead of the market. The question is whether the path ahead is a linear extension of past changes. It is probably not; otherwise, everyone could figure out the treasure map. Identifying the key factors influencing market demand is trickier than laying down a ruler.

Advanced geographic information systems can surely help. The real estate sector now benefits from databases with geo-coded sales information. Instead of relying on decennial U.S. Census Bureau data, the American Community Survey tracks trends annually. Major changes in transportation systems are known well in advance and can help identify when accessibility characteristics will shift. Traffic maps are now updated almost to the minute, and so patterns of congestion are readily identifiable. Even crime data are becoming more transparent at the neighborhood precinct level as tools like CompStat become part of the policing process.

Generically, consider non-TOD suburbs a short drive from a rail station or an as-yet-undiscovered urban neighborhood with walk-to-work housing potential near major employers like hospitals or colleges. Ride-sharing apps can support a capillary system for transportation, with the advantage of not requiring heavy capital investments such as those needed for traditional mass transit. “Minibus” service has been popping up as well, even in places like Brooklyn where commutation patterns do not always follow fixed-rail lines. Paratransit has long been used for seniors and the disabled, but can also be effective in places described as “transit deserts.” Perhaps we don’t need revolutionary solutions as much as we need meaningful accessibility improvements to bring more people from where they are to where they want to go. With GPS on every smart phone, we should be able to figure this out.

Capital Markets

“Caution at this phase of the cycle is **unprecedented** in my lifetime.”

U.S. commercial transaction volume was down by 10 percent during the second quarter of 2016 on a year-over-year basis, according to Real Capital Analytics (RCA), following a similar dip in the first quarter (18 percent). This was the first time since 2009 that investment transactions declined in two consecutive quarters and only the second time since 2009 there was any decline, a phenomenon that got the attention of the real estate industry with the subtlety of a whack with a two-by-four. In a world where growth is taken for granted as “a good thing,” contraction is taken as *prima facie* evidence of trouble.

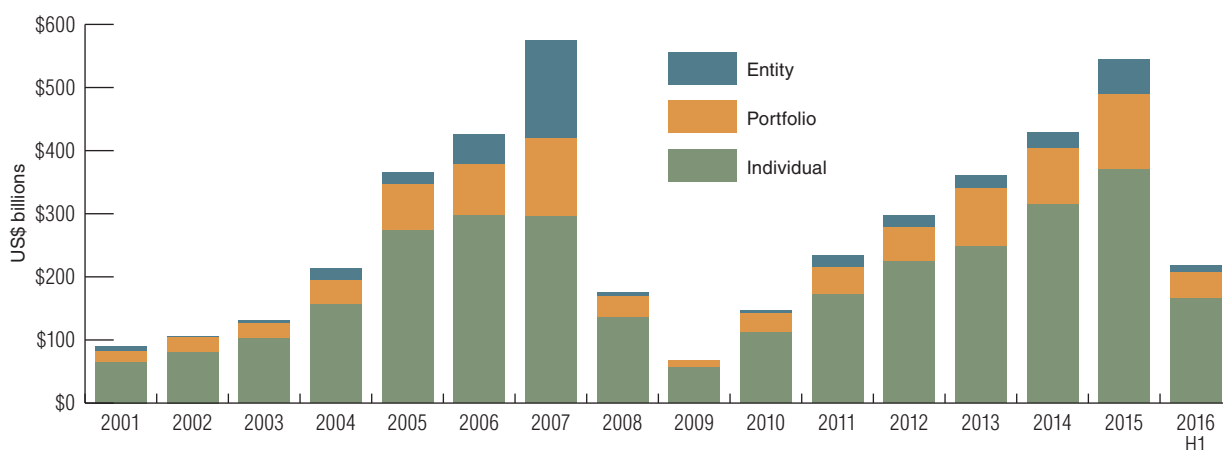
It ain't necessarily so.

Nearly a decade ago, a massive accumulation of world savings was flooding the American markets, driving prices to unsustain-

able levels. Transaction volume for 2015 rose 26 percent from the year earlier, to \$545.4 billion. Were we once again pushing into the territory of unsupported asset inflation? Concerns about a potential asset bubble were on the minds of *Emerging Trends* interviewees a year ago, but we observed capital seeking to remain disciplined. The objective was clearly to avoid a repeat of “the last time around.”

Led by apartment investment, the fourth quarter of 2015 established a new high-water mark of \$168 billion in total transaction volume, 7.6 percent above the prior peak in the second quarter of 2007. It is actually an encouraging sign that early 2016 brought an air of greater conservatism. Right now, we are not seeing money chasing deals under the sheer pressure of getting the capital out. This is a good thing.

Exhibit 2-1 U.S. Sales of Large Commercial Properties



Source: Real Capital Analytics.

Note: Based on independent reports of properties and portfolios \$2.5 million and greater. Before 2005, RCA primarily captured sales valued at \$5 million and above.

The markets seem to be adjusting the flow of investment, both in overall quantity and in asset selection, ahead of any potential bubble. One observer with long institutional investment experience calls the level of caution at this phase of the cycle “unprecedented in my lifetime.” It seems that the global financial crisis, for all its pain, may actually have been a “teachable moment” for the real estate industry.

The Debt Sector

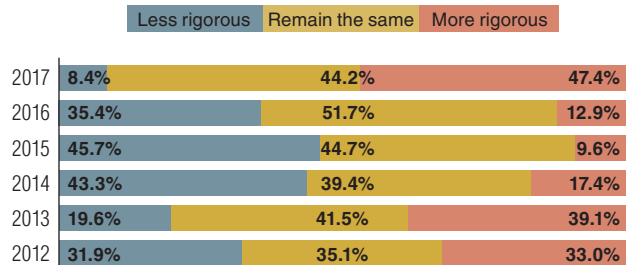
Liquidity is wonderful, and illiquid debt markets do incredible harm to the real estate industry. That is the fear behind the pushback on regulation. But we can also drown in too much liquidity. That is the concern of those seeking to build a levee in the lending markets. That debate will continue to command attention. One of the features of the real estate debt profile post-crisis has been a determined effort to reduce leverage. If the phrase “across the board” can ever be applied to the complex field of real estate, “lower leverage across the board” is a fitting characterization of change in the present decade. Loan-to-value (LTV) ratios are reduced in commercial mortgages. Loan-to-cost standards require more equity from developers. “Risk retention” means more skin in the game for banks and commercial mortgage-backed securities (CMBS) issuers. The idea that, in borrowing money for property, the lender will accept risk premiums that resemble equity while settling for the lower yields typical of debt is an idea that sounds peculiar and irrational to today’s capital sources.

Yet it doesn’t take much long-term memory to remember how far out on the risk curve lenders were willing to go in order to place their real estate allocations until the bubble burst. Just remember the glib arguments that “we are in the moving business, not the storage business” from lenders who followed the originate-to-sell strategy.

Even if market participants were inclined to go in that direction, regulators overseeing real estate debt markets are decidedly not. Over and over in our interviews, real estate experts said the Dodd-Frank rules and the Bank of International Settlements requirements are constraining the growth rate of debt capital in the business. And some believe this is not all bad.

One institutional lender said that restraining lending risk “is actually a healthy thing for the markets, and it’s going to make it less likely that we’ll have a dislocation between supply and demand . . . you’ve got the regulations in place on the debt side that are going to keep the banks from doing crazy things and are going to keep the CMBS industry from doing crazy things.”

Exhibit 2-2 Debt Underwriting Standards Forecast for the United States



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

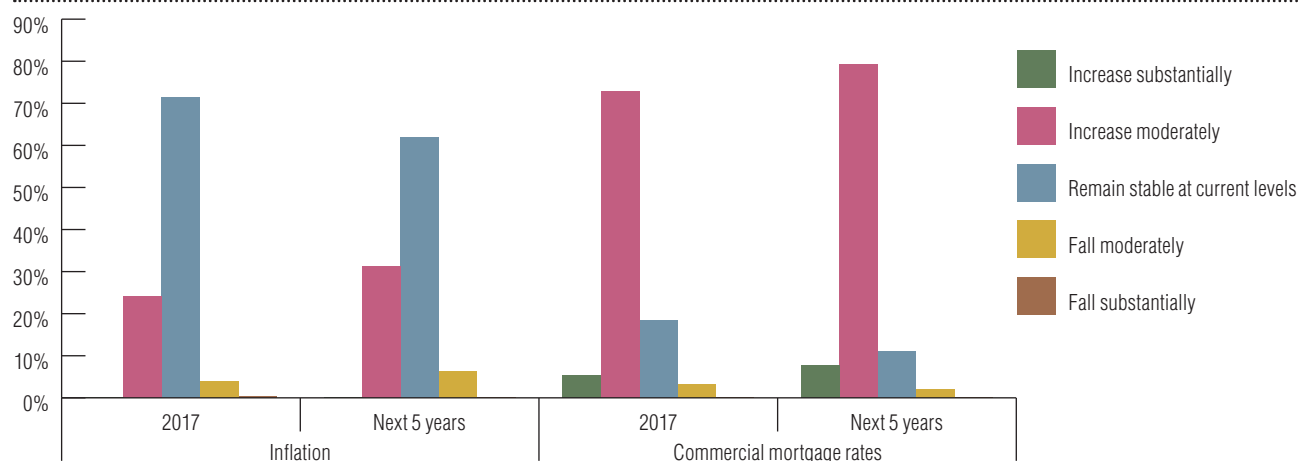
The largest insurers have also been identified as strategically important financial institutions (SIFIs), or “too big to fail” lenders. Officers of one debt investor protest: “Regulation is removing all liquidity from the market. Uncertainty about regulatory impacts is further depressing the market.” A competitor in the debt investment field sees things differently, though, since constraint on SIFIs opens opportunities: “It is a great time to be a private player in the debt markets.”

Listen to one borrower, the chief executive officer (CEO) of a publicly traded real estate investment trust (REIT): “Constraining regulatory forces, including Basel III and Dodd-Frank, are good for the real estate industry over the long haul.” In his view, financial discipline is holding, and, though yields are low, they are reliable due to solid underwriting. Smart money, rather than more money, is always a better path for real estate. Likewise, executives from a boutique firm intermediating international capital told us, “There is a fear of regulators holding back deals to some degree, but mostly it is a case of ‘lessons learned.’ We should not expect lenders to keep funding until the last minute in the cycle.”

Debt capital is the critical fuel that energizes the real estate industry. And if there is any takeaway lesson from the last decade’s tumult, it is that this fuel can not only burn hot, but also be volatile—sometimes explosively so.

Our survey respondents certainly see commercial real estate debt throttling back. Institutional owners of core assets are holding their debt levels to 20 to 25 percent, despite the historically low interest rate environment, seeking to satisfy the fiduciary consultants even at the expense of potentially higher equity yields. Capital availability scores in our *Emerging Trends* survey fell for all sources of debt, with the exception of the government-sponsored enterprises (GSEs). Survey respondents expect underwriting standards to tighten as well. Yet, they still view the volume of acquisition and refinancing debt capital as being in

Exhibit 2-3 Anticipated Inflation and Interest Rate Trends, 2017 and the Next Five Years



Source: *Emerging Trends in Real Estate 2017 survey*.

Note: Based on U.S. respondents only.

good balance relative to market conditions. Only in the case of development is debt funding considered undersupplied. That portends another year or so of improving occupancy across the U.S. property markets.

Commercial Banks

It says something dramatic when commercial banks rank dead last in our *Emerging Trends* survey on debt capital availability. But even more dramatic are some of the descriptive terms used by our interviewees on the subject of banks. “Banks will be dejected,” said one finance specialist. An investment manager handling offshore funds called banks “gun shy.” They’ve “dug in their heels,” said another manager. “It is a terrible time for money center banks,” in the view of a life insurance lending officer. And all this is happening when banks apparently have plenty of capacity for lending.

What’s up?

In a sense, a learning curve is underway. One veteran institutional investor sees the banks “practicing” for doing business under a new set of rules. That is not to deny that the learning isn’t painless, but the adjustment in banking needs to be put into perspective. Although banks have been bracing for the new regulatory environment for some time, the Dodd-Frank rules have been reaching their implementation dates only gradually. A key date is December 24, 2016, when banks contemplating commercial asset-backed securitizations must retain 5 percent of the credit risk for a five-year period.

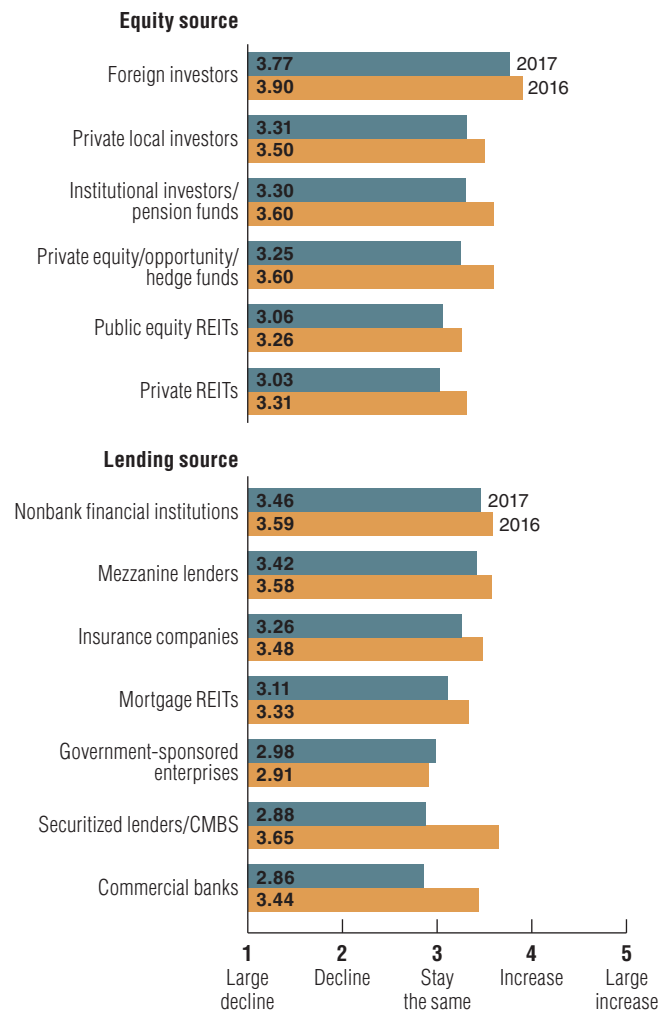
The good news is that banks, by and large, passed their stress tests in 2016. But a longtime analyst of real estate finance complains that the stress tests are unfair because they lack transparency: banks don’t know the formulas by which they are evaluated, so they can’t calculate their scores in advance. This leads to an “abundance of caution” approach that makes lending too costly and too uncertain.

Specifically, banks have been coping with rules concerning “high-volatility commercial real estate loans,” in effect, land and development loans requiring a 150 percent risk-weighting in calculating required capital unless the as-completed project has a low LTV ratio, and the borrower has 15 percent or more cash equity contributed prior to development and kept in the project until permanent financing is put in place. One developer says, “Banks can’t go outside the box” for fear of attracting regulatory attention.

A senior officer at a respected data provider on debt markets commented that regulators are especially vigilant at this point. Their question is: “What are we missing and not catching” in bank examinations? Clearly, those questions could well have been posed with beneficial effect a decade ago. We hear little discussion at this point about moral hazard questions—privatizing profits and socializing losses—that were upfront when the capital markets seized up during the global financial crisis. But moral hazard has not become a less vital concern, even if it is not attracting the same level of public attention.

Others, though, see greater difficulty in development lending as helpful, especially in an economic cycle where final demand has been fairly soft. The lending business may be slower, but the

Exhibit 2-4 Availability of Capital for Real Estate, 2017 versus 2016



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

safety and soundness of lenders remains strong. An executive at a major commercial bank sees more permanent lending and less construction lending in 2017 and 2018, but thinks that commercial real estate will be increasing as a percentage of total loans. So, in his view, there is not less debt capital, just a shift in its deployment.

Banks have an enormous existing base of real estate loan assets. Federal Reserve data show that, as of the first quarter of 2016, depository institutions held \$1.5 trillion in nonfarm, nonresidential loan assets—a 59.2 percent share of that asset line compared with 55.8 percent in 2012. Banks' multifamily loan portfolio also

has grown over that time period and now stands at \$388.6 billion, a 34.9 percent market share, up from 29.3 percent in 2012.

So keep the current handwringing in context. Commercial banks are not going away. And, given the appetite for real estate loans, it should be expected that other debt providers will be stepping into any gaps in the markets being caused by shifts at the commercial banks.

CMBS

The CMBS market displayed more surprises and plot twists than a Hollywood potboiler in 2016. Last year, *Emerging Trends* reported specialists expecting volume to hit or exceed \$100 billion during the year; it now looks like year-end 2016 volume will be about half of that. Beyond 2017, analysts expect the public debt markets to rebound, filling gaps in bank and life company lending. CMBS turns out to be very good at intermediating credit risk and, at volumes less than half of the bubble's peak, there is time to underwrite issues with less rush. The quality of the collateral is of paramount importance. If, as appears to be the case, real estate industry fundamentals stay sound, CMBS should be returning to its seat at the table with all the capital needed to be a significant player later in the decade.

We are right in the middle of the years when the “wall of maturities” was supposed to hit, provoking massive writedowns as ten-year interest-only loans faced maturity in a much different underwriting environment. But a recovery in values and a deep lineup of debt sources has meant barely a hiccup as paper issued during the bubble matured. On the technical side, analysts were disappointed when CMBX hedges did not work out quite as expected—costing investors money—as spreads turned volatile in the first months of the year. That experience put money on the sideline.

As the risk-retention witching hour of December 24, 2016, drew closer, the prospects for much second-half 2016 issuance darkened, since it takes time to prepare securities for pooling into CMBS. Issuers found little urgency among conduit lenders who would have to hold a portion of the risk for a period of years.

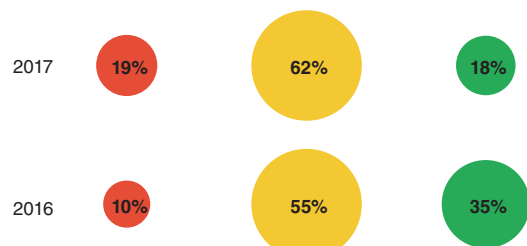
But it is likely a mistake to see the pullback in CMBS as a “trend,” even if issuance volume remains muted in 2017. That is what our *Emerging Trends* survey indicates, with the capital availability rating dropping 21 percent from just a year ago—the biggest drop of any of the debt sources. If that were a trend, we would expect the number to just continue falling. It is probably more accurate to term the present pattern an “epicycle,” a cyclical process that occurs within the context of a larger process.

Exhibit 2-5 Real Estate Capital Market Balance Forecast, 2017 versus 2016

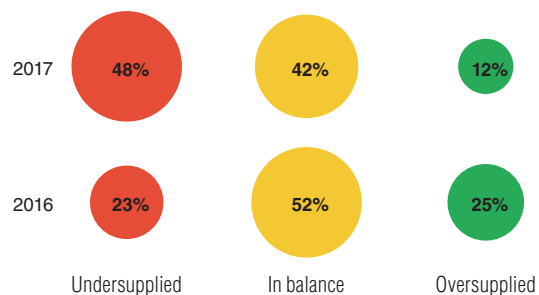
Debt capital for acquisitions



Debt capital for refinancing



Debt capital for development/redevelopment

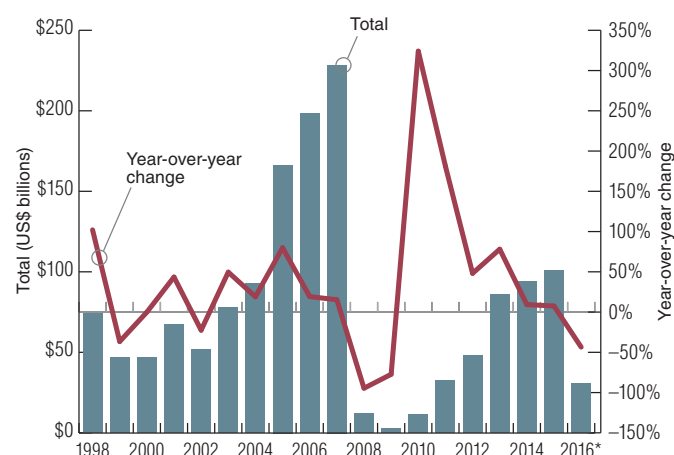


Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

Practically speaking, what does that mean? How should it shape expectations for securitized debt capital?

The larger process is the incredibly complex post-global financial crisis market adaptation. Every sensible investor is more defensive, asking the question, “How am I being paid for the risks I am taking?” The range of monetary responses spans policies from austerity (the path chosen by the European Central Bank) to accommodation (the easy-money policy at the U.S. Fed). The restoration of liquidity in the U.S. markets has bolstered asset prices.

Exhibit 2-6 U.S. CMBS Issuance



Source: *Commercial Mortgage Alert*.

*Total through June 30, 2016. Change in 2016 is from the first half of 2015.

Real estate's gains, in turn, have advanced within a context of lower leverage and stricter underwriting but improving collateral value and a broader range of debt capital providers. The greater competitiveness on the part of lenders has narrowed spreads, but not to the point where (as in 2005–2007) gross spreads versus Treasuries were 120 to 130 basis points. Today, those gross spreads are more like 180 to 200 basis points (compared with their widest point of 560 basis points in early 2009).

The epicycle for CMBS is responding to higher costs, partly due to risk-retention regulations, in the perspective of the officer of a firm providing analysis to banks and regulators alike. It is also partly due to greater skepticism on the part of CMBS buyers. The level of trust in rating agencies remains weakened. Also, the quality of issuers matters more now. One lending officer at a large U.S. bank expects the number of conduit lenders to diminish from 40 to 15 over the next few years, as CMBS pricing discourages the smaller institutions.

So a sorting-out process is occurring that will likely keep CMBS volume low during 2017. Even though a fair amount of 2007-vintage securities is maturing in the coming year, one CMBS analyst foresees “extensions” rather than invocation of the special servicers. “Pretend and extend” actually was a smart strategy in the banking crisis, and such flexibility for the CMBS market could be beneficial now, especially for collateral that “needs some TLC.” At any rate, only 25 percent of the maturing 2015 CMBS was refinanced by new securitizations; the balance was taken by other lenders or found new equity investors. Undoubtedly, some of the as-yet-unrefinanced assets in the CMBS pool are suburban offices and lower-quality shopping

centers that are illiquid. At some point, special servicers will need to capture whatever price they can, with heavily discounted transactions to opportunistic investors. This will no doubt grab headlines, but its marginal impact on the sector is not expected to be significant.

Life Insurance Companies

Long the stalwarts of the long-term commercial mortgage field, life insurance companies are navigating today's tricky lending environment with typical care. On one hand, as the real estate value recovery has reached a mature stage, investment committees still demand strict underwriting as they manage deal flow. On the other hand, the demand for debt capital exceeds available supply and so the insurers can direct funds into assets that they have not traditionally acquired.

How is that happening?

A large Midwest-based insurer believes that "banking regulation is creating a capital dislocation opportunity" for the life companies. The American Council of Life Insurers reports that life company loan commitments in the first half of 2016 totaled \$32.5 billion, up 9.2 percent from the first six months of 2015. Full-year production in 2015 amounted to \$64.9 billion. So life insurers are substantially above their last cyclical peak in 2006, when \$44.1 billion was lent in commercial real estate mortgages.

Several interviewees observed that a trend mentioned in *Emerging Trends® 2016* has accelerated. The life companies are filling some of the gap in development lending—but only to a degree. If underwriters consider a construction project likely to meet the institution's portfolio standards upon completion and stabilization, they may fund its development and be prepared to roll that loan into permanent financing. So-called development-to-core programs will likely become more common if traditional construction lending in the banking sector remains hobbled.

The upward trend on the balance sheet is likely to continue, too, as life companies fill some of the shortfall created by the constraints faced by the commercial banks and by CMBS. Insurers have been deploying third-party funds, in addition to assets being generated for their own portfolios. The traditional sources of funds for the big life companies—insurance and annuity products—have been in decline for some time now. So that source of capital and the investment pressure that came with it have been easing.

An executive of a major Midwest bank observed that not only does the expanded investment management business of the life insurers account for growth, but so does the "denomina-

tor effect"; as stocks continue their rise from the spring 2009 trough, real estate activity has to increase as well for the life companies to keep their portfolios balanced.

According to Federal Reserve data on loans outstanding, the life insurance industry had \$335.8 billion in nonfarm, nonresidential loans on its books as of the first quarter of 2016. That represented a 13.3 percent market share for the life companies, a significant increase from their 12.7 percent share a year ago. Meanwhile, the life companies' share of the multifamily loan market was virtually unchanged over the year, at 5.6 percent. Given the growth profile of the apartment sector, though, maintaining market share implies considerable growth in absolute terms.

A caveat: remember that some of the largest life companies are themselves SIFIs, and have the same disincentives as banks in undertaking "volatile" lending programs. Nevertheless, life companies have no shortage of prospective borrowers and are still in the driver's seat when it comes to underwriting deals. Seasonality enters into the picture. A major private equity firm, with substantial experience in real estate transactions, says that "we like doing business with the life companies, but they tend to use up their real estate allocations early in the year."

Bottom line: mortgage debt growth in the life insurance sector should persist, but in an incremental trend rather than in leaps and bounds.

Mortgage REITs

As of midsummer 2016, NAREIT reported that the 37 FTSE/NAREIT-listed mortgage REITs (MREITs) had a market capitalization of \$56.9 billion. Twenty-five MREITs focused on home financing, while 12 concentrated on commercial properties. The MREIT sector enjoyed strong performance in early 2016, as investors were attracted to the 8.66 percent dividend yields for the sector. Like all REITs, mortgage REITs must pay out 90 percent of their cash flow in the form of dividends, and MREITs had a higher yield than any subsector of the equity REIT market.

That said, the size of the MREIT universe is comparatively small and its asset base is dwarfed by the \$4.8 trillion in mortgage assets held by commercial banks and life insurers and by the \$5 trillion balance sheet of the GSEs, as reported by the Federal Reserve, and is only one-tenth of the \$566 billion volume of CMBS outstanding, as reported by the Securities Industry and Financial Markets Association (SIFMA). So, while it is encouraging to note that *Emerging Trends* survey respondents indicated a stable outlook for MREITs, keep in mind the minor impact this sector has on the overall debt market, as well as its concentration on the housing segment.

Nevertheless, a few of our interviewees are bullish on MREITs. At least one investment firm has filed an S-11 to launch a new mortgage REIT, and one of the large trust banks believes that MREITs will be more active in 2017.

Why might this be so?

The stable interest rate environment has given MREITs room to arbitrage short-term borrowings against higher-yielding mortgage instruments. The predilection of the Fed to “go slow” in ratcheting up rates has encouraged MREIT buyers to anticipate successful future arbitrage, with risk managed by conventional interest rate hedging. So high dividends and a fairly steep yield curve are the story here.

How much of this money returns to the pool of debt capital available to real estate borrowers? Not much, it would seem. REITs purchase existing mortgage instruments, with those purchases theoretically enabling mortgage originators to recycle funds to real estate projects. But the contribution of this pool of recycled capital is tiny compared with the originators’ outstanding mortgage assets.

And, of course, we should not take our eyes off the key risk factor: if inflation increases and rates rise, and if the yield curve flattens at the same time, there will be stress in the MREIT sector.

The GSEs

Emerging Trends survey respondents see capital availability from the GSEs—alone among the sources of debt capital—as rising in 2017, not an insignificant move given the size of these entities and their impact on the multifamily sector particularly. The apartment sector (and the health care sector as well) have become increasingly reliant upon the GSEs. In the aftermath of the financial crisis and in particular with some of the accounting shenanigans that caused heads to roll at the agencies and spurred their consolidation in receivership, many bet that the whole superstructure of the GSEs was doomed. And most felt the demise would be well deserved.

What is behind this redemption story?

For one thing, as the run-up to the housing bubble was more closely analyzed, the complexities of the ill-considered mortgage debacle became clearer. The simplistic proposition that the GSEs “caused” the crash, as a putative result of social housing policy, got it backwards. Private-label residential mortgage-backed securities (RMBS) started the flood of subprime derivatives, with agencies being pressed by their own shareholders to emulate the private issuers in order to preserve the

GSEs’ shrinking market share. After the tide went out, if Fannie and Freddie had not remained in place as a source of liquidity, the remarkable rebound in the apartment sector (and the stabilization of the single-family-home sector) would have faced nearly insurmountable headwinds.

Borrowers and other debt providers are now quite sanguine about the functioning of the GSEs. A researcher at a major banking trade association remarks that the agencies have “a strong and growing market share” in multifamily originations. A developer with a large multifamily portfolio calls Fannie and Freddie “a reliable source” for mortgage money and now expects them to remain in place for the foreseeable future. The CEO of a private equity firm says that the GSEs are “very aggressive and price very well, especially for 60 to 65 percent loan-to-value deals with 1.35 to 1.5 debt-coverage ratios in the top 16 markets. They are especially interested in affordable deals as defined under their charter and regulations.” One of the leading pension fund advisers maintained that “the best way to invest in multifamily is still with funding from Freddie and Fannie.”

So, unless a severe political dislocation follows the presidential election, the consensus on the GSEs is that they have corrected their excesses and are again a linchpin of the housing debt markets. Without such a dislocation, the outlook is for Fannie and Freddie to continue in this important role.

Shadow Banking

As regulation affects banks, opportunities for private, noninstitutional lending open up, and this could be an option for certain borrowers in the coming year and beyond. One executive at a major international bank says, “Borrowers are going to ‘shadow banks’ for lending. These shadow banks are offering moderate to high leverage without recourse, with limited oversight by regulators. Shadow banks’ market share is increasing, although no one truly knows by how much.” The aggressive oversight by regulators has made large institutions skittish about all but top-quality deals, in the view of another banker: “This has hurt smaller or less established borrowers and forced all but the best into seeking less regulated ‘shadow banking’ lending.”

Is a threat lurking in the shadows? Or is this just a question of innovation arising in response to a capital need that is not being satisfied as the newly installed regulatory regime is sorted out?

A prominent financial expert had this to say: “The nonbank banks are doing all the interesting lending; although a big chunk is offsetting the demise of a capital provider that exited rather than accept designation as a SIFI. I find it a bit bizarre since the

main source of capital for the nonbank banks is the banking system itself, through standard lines of credit.” Well noted.

One established investment adviser has moved to fill what it sees as a void. “We have a high-yield debt group in the space vacated because of reduced bank and CMBS lending. We can achieve high yields, with much of the capital issued as mezzanine debt or preferred equity as part of construction lending. Investors in this fund include U.S. institutional funds and Asian investors.” He notes that other established institutions have similar programs on offer. If a genuine market need for debt capital exists, the U.S. financial system does not lack for the resources and the ingenuity to satisfy that need. One particular opportunity is obviously in development lending, especially for multifamily, both rental and condominiums. The “risk-off” capital environment is at odds with underlying demand.

The Equity Sector

There is such a complex relationship between the real estate equity and debt markets that a real temptation exists to reduce the discussion to an easier-to-sketch binary choice. Behavioral economists like Daniel Kahneman in *Thinking, Fast and Slow* and Richard Thaler in *Misbehaving* have pointed out the dangers in making too-facile choices in an either/or fashion, when a spectrum of options can be observed.

False dichotomies are not useful in sorting out complex markets.

So, when we turn our attention from debt to equity, it is important both to look at the spectrum of investment choices available and to recognize that what is happening on the debt pole of that spectrum influences the choices of those on the equity side. As leverage has been deemphasized in the post-financial-crisis environment, obviously the weight accorded to equity increases. Risk may seem to increase as more equity capital is demanded (because the debt providers are by choice and by regulation seeking to mitigate their own risks), but lower leverage actually may help reduce the level of equity risk as well.

How could that be?

Well, the mortal threat to the equity holder is the extinction of equity in default, and lower LTV ratios make the survival of equity a higher probability in a market downturn. “Live to fight another day” is a maxim appreciated by those who have made it through severe cycles. Lenders see their own discipline as self-interested, to be sure. They want to avoid becoming swamped with real estate owned (REO) again. But the lower LTVs (greater equity requirements) also cushion the cycle. “We’re expecting downturns to be more moderate, with no ‘big crash’ in the

near future. People have learned their lessons,” says one large Midwest bank. Says another, “The wave will not crash.”

Discipline on the debt side is promoting discipline on the equity side. Remarkably, for a year so deep into this real estate cycle, “equity is still king.” And the king wants to keep control over the realm.

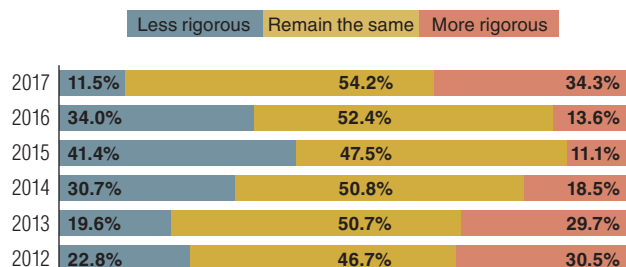
An international institution sees acquisition flows slowing as caution increases, even for safer investments. “New capital flow into the core equity space is beginning to move from a torrent to a moderate flow.” Even with ample equity capital, “We will look at the same number of deals but move ahead with fewer transactions.” A domestic institution confirms: “People are being more meticulous, so capital is slower to move.”

Choices are being evaluated on specifics. As one capital markets adviser put it, “The market is hungry for alternatives. Clients prefer multiple-choice questions [so they can see just what their options are] rather than being asked open-ended questions.” Thus “the big firms are getting bigger,” in the view of a longtime observer of institutional investors, “providing more products to their clients.”

Here is another place where a spectrum of choices, rather than a dichotomy, shapes the real estate market equity profile. Heterogeneity of investors is a key to liquidity in the market. “For every investor seeking ‘out’ [to rebalance a portfolio, for instance], there is another one waiting to ‘get in.’ ”

That applies to not only investors, but also locations. The *Emerging Trends* forums held by ULI district councils (see chapter 3) revealed important distinctions on equity capital availability. A whole swath of markets reported plenty of equity and debt capital—ample overall liquidity—and across a range of markets large and small: Washington, D.C.; Minneapolis;

Exhibit 2-7 Equity Underwriting Standards Forecast for the United States



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

Exhibit 2-8 Real Estate Capital Market Balance Forecast, 2017 versus 2016

Equity capital for investing



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

Pittsburgh; Sacramento; Austin; north Texas; and elsewhere. A few markets, including Columbus and central Florida, saw “plenty of equity, but not as much debt.” And then there were a few locations, perhaps surprising ones like Nashville and Los Angeles, that characterized their markets as having “plenty of debt, but not as much equity.” While such evaluations are somewhat subjective, they represent informed judgments that should not be dismissed out of hand.

Lastly, let’s not forget that the capital stack itself is often depicted in the binary terms of debt and equity poles. But there is a flexible middle here as well. Joint venture and minority interests often fill in gaps between primary equity and senior debt. With lenders seeking to manage LTVs at a lower level, as a matter of present policy and for an indeterminately long period ahead, equity investors have to take sharper pencils to their own risk/reward calculations.

In the past, mezzanine debt has filled that gap, but lenders are now uncomfortable in allowing such subordinated lending. So preferred equity positions become more common. One interviewee noted that “equity underwriting gets stricter when yields get tighter.” The preferred equity investors provide one solution to that conundrum, since they earn better yields for providing the additional capital needed to keep the overall debt/equity ratio at a level that makes financing viable.

So much depends upon the structure of returns. With the rebound of pricing, investors now see more of the return coming in the form of predictable income and less in anticipated appreciation. Track records also count. “To the extent that you can support your investment thesis, giving evidence of execution and return, the capital is there,” said the CEO of a private U.S. equity fund. Or, as another investment manager put it, “Real

estate equity is an evolving business, and the market is hungry for alternatives.”

Institutional Investors

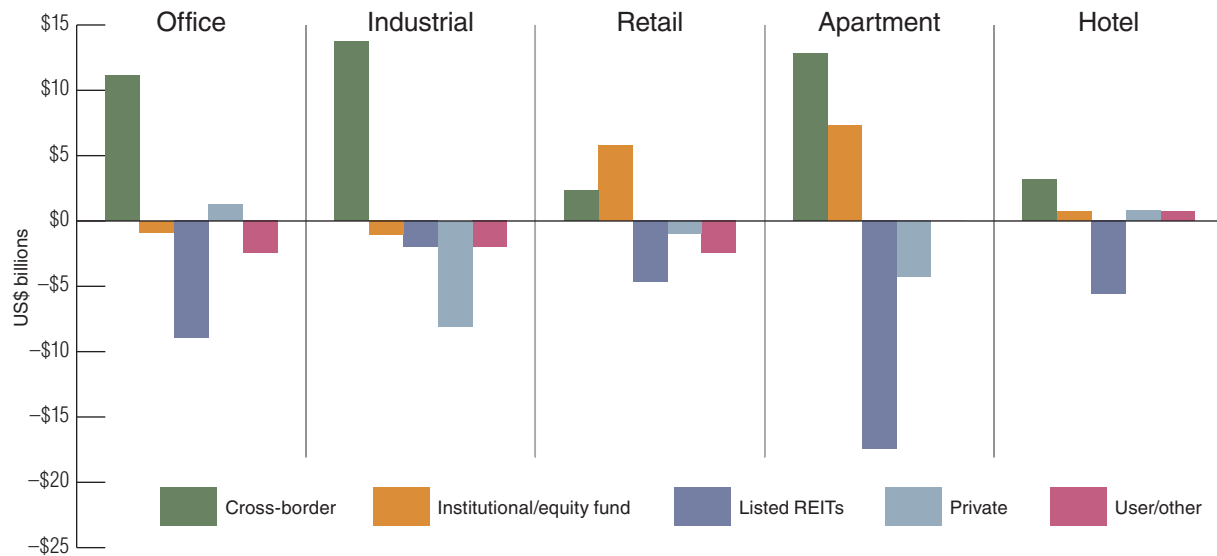
In the words of a senior officer at a data provider to virtually all institutional real estate investors, “Commercial properties are delivering stable yield in a global capital market starved for yield.” The more diverse the holdings of an institution—across the span of asset classes, and across the span of the globe—the more it makes sense to have a continuing stake in U.S. investment properties. The motivation includes yield, unquestionably, but it also includes the risk-hedging quality of portfolio diversification. In a world where volatility is the expected state of markets, the more value diversification has.

Investors contributing to the NCREIF Property Index clearly subscribe to this perspective. As of the second quarter of 2016, NCREIF investors owned 7,353 properties with an estimated market value exceeding a half-trillion dollars. Over the past three years ending June 30, 2016, the number of properties has increased by 254 assets (3.6 percent) while the portfolio value has risen by \$169 billion, or 50.2 percent. These institutions have not only ridden an upsurge in the market, but also spent the time repositioning the assets that they have under management, buying some properties while selling others, and (generally speaking) getting “bigger” by holding ever more valuable assets. That makes a lot of sense for the pension funds, endowments, and insurers that typify the NCREIF investor universe, since they are “beta” investors with long-term perspectives and are less driven by “alpha” opportunities of market timing (although most do have value-add and opportunistic tactical funds within their overall strategies).

At this point, the upward surge in institutional holdings may be pausing, while the internal “rationalizing” of portfolio structures continues. One real estate equity investment officer at a major insurer said he has seen “a risk-off attitude, especially with domestic institutional investors. They feel like valuations are full and they’re just going to take their time. There’s always the denominator effect with their public equity portfolio. They’ve basically been investing the last five years and they’re relatively fully invested, so they’re kind of stable.”

The risk-off approach should favor the larger markets and the so-called smile states where institutional capital can be deployed most efficiently. (By and large, large markets are in the arc described by the coastal and Sunbelt markets, with a few exceptions such as Chicago.) One such investor explained that he and his peers “look to invest \$50 million or more than that in a single investment. To do such larger deals, you’re usually stick-

Exhibit 2-9 U.S. Buyers and Sellers: Net Acquisitions, by Source and Property Sector, 2Q 2015 to 2Q 2016



Source: Real Capital Analytics.

ing to the bigger markets.” Greater conservatism also favors the handful of U.S. markets—between six and ten cities, by most investors’ count—that provide the most liquidity when it comes time to pull the trigger on “exit strategies.”

One noted analyst who is a fan of secondary markets such as Charleston, Columbus, and Nashville acknowledges the upside for smaller investors of such selectivity on the part of the large institutions: “The yield in those markets is higher and the risk is lower if all you care about is return. However, since they don’t attract big institutional capital, the risk is higher if you have to sell every three to four years. So for people who have to do that every three to four years like funds, the secondary markets are not very attractive. But they are great markets nevertheless because you’re not taking on extra operating risk. You are taking on higher exit risk; but if you’re not planning on exiting, that is not a problem.”

As institutions become more multidimensional in their tactical platforms—a key trend in this segment of the market—it should be expected that additional capital will be deployed in the secondary markets, and held there. This has the potential to stabilize some of the cyclical risk in markets ranked 11 to 30 in size across the United States. Such a viewpoint is not yet in the mainstream for the large institutions, though. As one such investor told us, “An institutional investor finds it hard to pick the right asset and the right markets and have that right team in that market. You need to be a sharpshooter to be successful, and that’s not the way an institutional investor can invest for a portfolio.”

Beyond the financial aspects of institutional investment, some key governance issues also are afoot. Benchmarking against a checklist of standards is becoming more the norm: environmental ratings, social impact, governance transparency (ESG). This is an “emergent trend” according to one expert in the sustainability field, and it is accelerating. This affects the set of minimum standards for institutional investment in trophy or high-performing real estate. “Credentials are subject to close examination,” said this consultant, noting that 60 percent of all investment managers have some ‘green building’ standard.”

REITs

With a market capitalization exceeding \$1 trillion, as reported by NAREIT, publicly traded REITs can be a potent source of equity capital in the real estate investment universe. At present, REITs hold several advantages. The trend toward deleveraging and the further regulatory impetus toward credit stringency work in favor of the trusts, which maintain balance sheets with a 33.4 percent debt ratio and a coverage ratio of 4.9 times income. Income-oriented investors like the high dividend payment rate of 3.47 percent (compared with the S&P 500 dividend rate of 2.13 percent) with a total of \$46.5 billion paid out by stock exchange-listed REITs in 2015, and another \$4.5 billion paid out by nonlisted REITs. In a normally functioning market, REITs are highly liquid, with the average daily trading volume in July 2016 coming in at \$7.1 billion.

That said, Real Capital Analytics (RCA) data indicate that REIT acquisitions of properties in the first half of 2016 were off sharply, down 62 percent from the same period in 2015. Some see this as a result of falling share prices early in the year, making new acquisitions nonaccretive to the REITs and prompting a reshuffling of assets from stabilized properties to other properties with value-adding characteristics, including new construction. Others point out that market conditions favor dispositions for REITs, which can book gains by selling assets at today's low cap rates.

That may be why the S&P's REIT Index was up 11.1 percent at the end of August on a year-to-date basis. Total return was an encouraging 18.3 percent, compared with 7.7 percent for the S&P 500 as a benchmark. If, however, investors are moving into a risk-off frame of mind, the volatility of the REIT sector may be a negative factor, since its standard deviation in returns has exceeded the broader stock market over the three-, five-, and ten-year time horizons. Also, in terms of stock market fundamentals, the price-to-earnings ratio for REITs looks high at 36.3.

REITs' ability to raise capital as an asset class distinguishable from the financial sector is also improved, according to an attorney specializing in REIT merger-and-acquisition activity. REITs are often underallocated in general equities portfolios, though they produce attractive returns. Once REITs are considered as a separate trillion-dollar sector, they may see higher levels of allocation from mixed-asset investors.

So how do things shake out?

One senior officer at an investment management firm sees REITs as taking part in a more general "pause" in what appears to be a market plateau, if not a cyclical peak. That view is in line with the mild reduction in capital availability seen in exhibit 2-4 for public equity REITs and private equity REITs, toward the bottom of the "stay the same" range.

Analysts looking at REITs note that the quality of the assets held tends to be very high. Retail REITs, for instance, represent 25.7 percent of the sector—the largest share by a considerable margin—and so-called fortress malls are the hallmark of the holdings. Triple-net-leased retail also is doing well, and retail REITs are not standing pat in the fast-changing retail environment. One Wall Street analyst noted that "mall companies are very active in redevelopment, with some of the stronger malls adding GLA [gross leasable area] while improving the mall experience. They are also investing in technology." This analyst observed, furthermore, that "many REITs are culling their portfolios in order to focus. Most are exiting secondary and tertiary

metros to focus on a few primary markets. They are becoming more geographically focused."

A number of REIT executives are among our interviewees, and as a group they ratify the perspectives of the analysts. One CEO of a privately held residential REIT said, "I don't see REITs much in the market as buyers. We are, however, doing some JVs [joint ventures]." Another private REIT manager remarks that as part of a "value-plus" strategy, they are funding "build-to-core" construction, but have stepped away from acquiring existing assets he sees as already richly priced. The CEO of a public company that restructured itself as a REIT in early 2016 maintains that operating as a trust creates greater clarity for management and for investors. He advises focusing on fundamentals such as job growth, demographics, and interest rates. His outlook is optimistic and he reports rent gains in the property types—apartment, office, and retail—held by the firm.

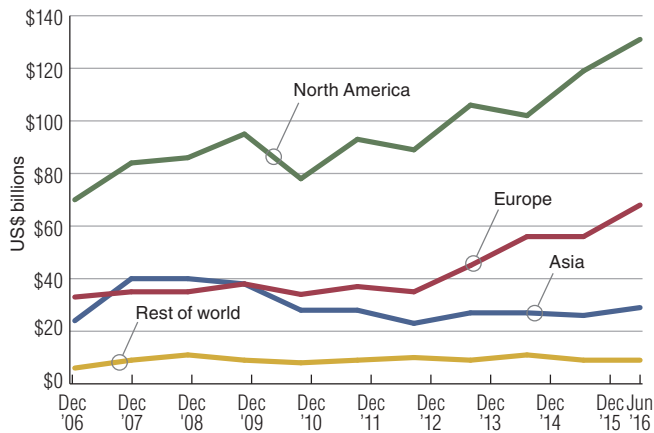
Lastly, some see additional capital coming into the sector from abroad as a result of the United Kingdom's Brexit vote in late June. The argument is that London has long enjoyed a substantial capital base in its publicly listed real estate companies, but these now face two years or so of economic uncertainty as the separation of the United Kingdom from the European Union is negotiated. In keeping with the oft-mentioned risk-off sentiment, this could presage a shift of capital into the publicly traded U.S. REITs. If so, then that capital will need to be deployed between now and 2018, bolstering acquisition activity from this sector once again. It is timely that changes in the Foreign Investment in Real Property Tax Act (FIRPTA) rules increased the amount of REIT stock that a foreign person may hold from 5 percent to 10 percent during the past year.

Private Equity

Private equity investors, as noted in *Emerging Trends® 2016*, have been taking an increasing share of total transaction volume for the past decade and a half. In the past four quarters (through June 30, 2016), as reported by RCA, private investors have accounted for \$220.4 billion in total purchases. They have been net sellers to the tune of \$8.2 billion over the last year, indicating a trading mentality that seeks to provide returns to their capital providers by market timing and asset selection. Like REITs, private equity may have seized an opportunity to take advantage of both cross-border and institutional investors' willingness to accept low cap rates in assets where return of capital bore a high weight when compared with return on capital.

Private equity players, then, can be fairly described as a significant and sophisticated source of equity capital. Playing on the riskier end of the investment spectrum, though, requires highly

Exhibit 2-10 Closed-End Private Real Estate Dry Powder, by Fund Primary Geographic Focus, December 2006–June 2016



Source: Preqin.

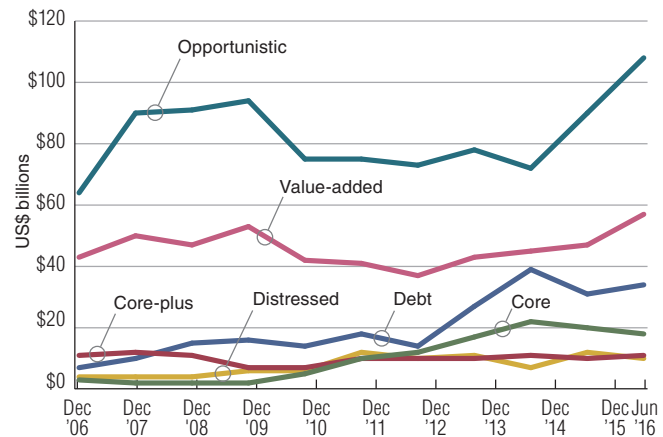
focused attention on market movement and trends across U.S. geography and property types.

According to Preqin, a data firm specializing in the private funds arena, there was \$238 billion in “dry powder” (funds queued up for investment) in real estate closed-end funds worldwide as of June 2016. More than half of the funds are focused on North America—largely the United States—with 29 percent looking primarily at Europe, 12 percent at Asia, and just 4 percent exploring the rest of the world. While others are in risk-off mode, the private funds are seeking yield and willing to move into investments with greater perceived risk to generate that yield. Almost 70 percent of the funds are concentrated in value-add and opportunistic investments. This will mean directing their capital to secondary and tertiary U.S. markets and to noncore property types. This, then, will be fairly creative and flexible capital for 2017, filling niches that core and core-plus investors are passing over at this point.

Private equity funds see some of the same market parameters as the institutional investors and the REITs. They believe that lower levels of return and risk are the “new normal” for U.S. property, and that in this new environment, skilled property management has been elevated as a key factor in realizing potential return. Despite the much-discussed discipline in development, however, nearly four of ten private equity firms disagree that overbuilding risk has been substantially reduced in the property markets.

Emerging Trends survey respondents see private equity as a solid source of funding that will stay at the same levels for 2017

Exhibit 2-11 Closed-End Private Real Estate Dry Powder, by Strategy, December 2006–June 2016



Source: Preqin.

but rank private equity investments at the top of the list for prospective performance in the year ahead.

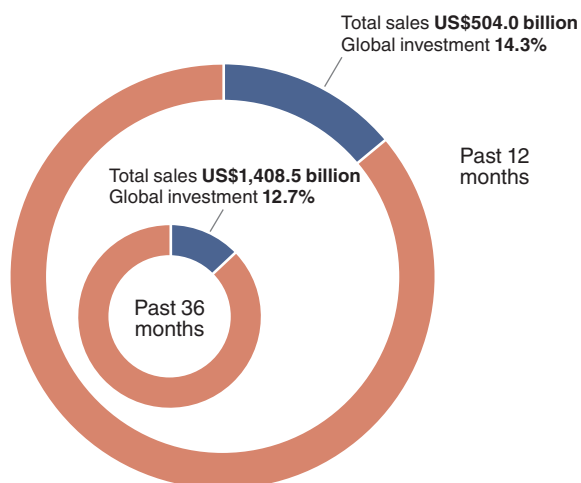
Competitors in the marketplace are seeing the entrepreneurial risk-taking of the private funds as providing capital to sectors out of favor with some others. An office REIT executive points to suburban offices as a segment where private money can provide needed capital improvements (with low financing costs) that should improve cash flow and be sold at a higher price in just a few years. Another specialist from the homebuilding industry, however, suggests that even “risk-on” private investors are cautious about undertaking projects that have a multiyear development horizon.

Nimble and sophisticated private equity funds should maintain a substantial market share in 2017 and thereafter. As more U.S. metropolitan areas share in the nation’s employment growth and in rising incomes (at last), selective opportunities should be surfacing beyond the gateway markets and the newly emerging 18-hour cities. The private equity funds, whose *raison d’être* is “generating alpha,” will be most likely to see and exploit these individual opportunities. Then expect them to offer the turned-around asset to the “beta” investors at a handsome profit.

International Investors

Against the backdrop of \$40.6 billion of net U.S. real estate purchases by cross-border investors reported by RCA (and a gross acquisition volume of \$75.4 billion in the last four quarters through June 30, 2016), the prospects of even more international investment in U.S. property in 2017 might seem wildly

Exhibit 2-12 Global Real Estate Investment in United States as a Percentage of Total Sales



Source: Real Capital Analytics, as of June 2016.

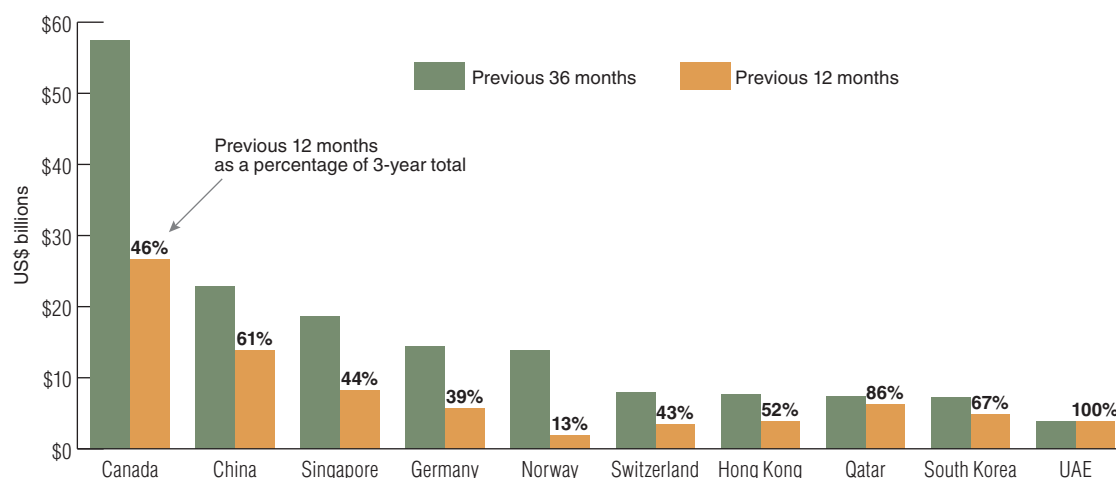
optimistic. Yet offshore investors rank at the very top of the *Emerging Trends* survey of capital availability this year, with a score that is 14 percent higher than number-two-ranked private local investors. Globalization may engender its discontents, but the flow of capital from abroad has—with ups and downs—brought an aggregate net acquisition volume of \$136.6 billion into U.S. real estate markets since 2001, according to RCA, only 5 percent lower than institutional capital and large equity funds (combined) in net volume.

And in the coming years, we may see an acceleration as U.S. markets present more favorable prospects and greater certainty than the main European investment center, London, in the aftermath of the Brexit surprise of last June. The perceived stability of the U.S. economic and political system is an asset that should never be lightly dismissed.

Unfortunately, according to a number of our interviewees, nationalistic rhetoric during the presidential election has raised the specter of protectionist trade policies that could threaten the free flow of investment. We heard this from bankers, investment intermediaries, institutional investors, and developers alike. An election surprise of the magnitude of Brexit could certainly spook the markets. It is unsettling, to say the least, to see that the political environment in the United States so frequently appears on the list of risks influencing investment thinking. “The election is a huge weight on everyone’s mind. Uncertainty causes people to avoid action,” said one international investment manager. “The world is in a mess; I want to be in cash.”

Wariness, however, has not yet translated into adverse action. In fact, international investors themselves are demonstrating a willingness to expand their menu of investment choices beyond core properties in major markets. One fund investing high-net-worth European family wealth has been focusing on the Carolinas, in multifamily and retail assets and development opportunities. The manager of this fund sees “more bang for the buck” in being able to buy multiple assets in the Southeast for the price of a single property in a gateway city. The increasingly cosmopolitan culture in the Carolinas—a result of offshore

Exhibit 2-13 Global Investment in U.S. Real Estate by Country



Source: Real Capital Analytics, as of June 2016.

investment in manufacturing and transportation in the area—is another plus.

Another cross-border intermediary with both institutional and family-based capital sources reports a similar willingness to penetrate into secondary markets including Colorado, Arizona, Oregon, Tennessee, and Minnesota. They are raising opportunistic funds in the \$90 million to \$150 million range (per fund), with 65 to 70 percent leverage and a targeted return on equity of 13 to 15 percent, net of all fees.

Many of our interviewees have remarked on the influx of Chinese capital in the past several years, and see this continuing. Part of the motivation is safe-harbor consideration; part is the development opportunity over the long term; part is linked with the growing base of Chinese businesses and population in the United States; and part is simply the need to deploy excess savings abroad that exceeds the capacity of China's domestic market. Other Asian nations also are adding to the flow of capital.

Specialized Sources

The fine mosaic of real estate opportunities across the United States attracts a variety of specialized sources of capital. Small syndications and other forms of limited partnerships are active in the health care, workforce housing, and single-family-for-rent niches.

Owner-users have quietly accounted for 6 to 7 percent of aggregate investment, or about \$25 billion to \$30 billion in acquisitions each year for the past five years, according to RCA. Especially in an era of rising rents and property values, the user sector is an unsung element in the marketplace, with small businesses being a key customer base both for smaller developers and for investment brokers.

Small investors are watching potential changes in 1031 tax-free exchanges warily. The concept of like-kind swaps is appealing to many investors who seek to defer capital gains taxes when selling property, and the tax code has facilitated such transactions. There are recurrent moves in Washington to curtail or eliminate this benefit. One developer expressed concern that this would alter business models for many small real estate market participants.

Crowdfunding continues to generate skepticism in most quarters. “A pool of capital a mile wide and an inch deep” was one capital adviser’s capsule summary. Nevertheless, as an expression of “the sharing economy”—a growing phenomenon that encompasses Uber, Airbnb, WeWork, and WeLive—crowdfunding remains on the radar of more than a few *Emerging Trends*

interviewees. There is a real question of scale: “Crowdfunding is interesting but not large enough to matter much,” said one banker. A boutique capital adviser is watching it closely, though: “Crowdfunding has seen tremendous growth, but no one in the crowdfunding space is truly doing it correctly, making it scalable. Most sponsors come from a tech background. There may be blowups in the next two to three years, but long-term there is the possibility for someone to do crowdfunding right and be richly rewarded.” Stay tuned.

Summary

While there is a great deal of discussion about reaching a plateau, or experiencing something of a pullback in activity, or finding the cost and availability of debt hobbling future growth somewhat, the consensus of *Emerging Trends* survey respondents, interviewees, and focus group participants calls for healthy, if moderate, growth in real estate capital investment in 2017, and probably beyond.

Most industry participants do not see a general business recession compromising demand growth for residential and commercial property. But most do expect that construction will remain muted, especially for a business cycle that has persisted so long. Banking regulation has particularly discouraged development lending, and so investors believe that supply/demand fundamentals will favor rent growth, at least over the short term.

Concerns, in fact, arise less from changes in the cycle or in identifiable trends than from disruptive shocks, the kind that economists like to call “exogenous variables” and that commentators are prone to call “black swans.” However, the likelihood that such an unforeseen event could tip the economy and its real estate markets “over the edge” seems remote at present. This is not because event risk is less. Indeed, volatility is very much on the mind of the real estate community. It is that excesses within real estate that would exacerbate its vulnerability to a shock are hard to see at this point. Volume has already eased in early 2016. Pricing has recovered but appears to be leveling off. Liquidity is available, but we are not seeing a drive to put capital to work “no matter what.” So, as exhibits 2-5 and 2-8 indicate, prudence is the watchword for 2017.

Or, as the axiom from Aristotle from so long ago held: “Virtue stands along the middle way.”

Markets to Watch

“Opportunities still exist within most markets. A number of investors view markets with challenges as **opportunities waiting to happen.”**

“There are great deals in weak markets and really lousy deals in strong markets.” This is the opinion of a pension fund adviser regarding how they are now choosing markets. One thing is coming through loud and clear from the *Emerging Trends* interviews: you can find opportunities in any of the markets in this year’s survey, whether the market is number-one Austin or number-78 Buffalo. It all comes down to your strategy, risk tolerance, return requirements, and access to deals. If the markets are the squares on the chessboard and the property sectors the pieces, then there is an almost infinite combination of moves that can be made.

2017 Market Rankings

“We love warehouse in secondary markets in the middle of the country—markets like St. Louis, Nashville, Indianapolis, and Cincinnati. These markets are finding a place in the distribution chain.”

Emerging Trends in Real Estate® survey respondents shuffled the markets a little for 2017. Austin, which has been a fixture in the top ten for the past few years, is getting its turn at the top, after switching positions with Dallas/Fort Worth at the top of the survey. Austin becomes the third consecutive Texas market to lead the survey following previous number-one markets Houston and Dallas/Fort Worth.

The composition of the top 20 markets reflects the underlying themes conveyed by this year’s interviewees. Market participants like the potential for faster growth, with seven of the top ten markets exhibiting economic growth easily exceeding the national average. Another theme expressed by interviewees and survey respondents is a renewed interest in the perceived stability of core gateway markets, with Los Angeles and San

Francisco still being ranked in the top ten and with three others still ranked in the top 20. The reason typically given for not including a core market in the top ten is the current pricing of assets in the market. A pension fund adviser opined, “The core markets are still relatively attractive from an economic standpoint, but the pricing in these markets makes you take a look at some other alternatives.” Are there secondary markets ready to join the big six? Interviewees continue to express interest in the “next tier,” or the next five to seven markets that can be added to the existing six core markets. These additional markets have always been popular with domestic investors, but are also seeing rising interest from nondomestic investors.

When we look at where the top markets are located, it is pretty clear that survey respondents are still “smiling.” Seventeen of the top 20 markets lie in the mythical smile that runs down both coasts and across the southern tier of American states, with Denver and Salt Lake City in the mountain region and with Chicago representing the center of the country. The smile markets may dominate the top 20 list, but a positive from this year’s survey is a generally positive outlook for markets in all regions.

Market Summaries

The reader spoke and we listened. The interest in what is going on in all markets continues to increase, so the 2017 edition of *Emerging Trends in Real Estate®* is offering an expanded look at all 78 markets included in this year’s survey. Key to this expansion was the ULI district councils’ convening of 30 focus groups during which market experts contributed their knowledge and insights. This expertise is also referenced throughout the rest of the report.

Exhibit 3-1 U.S. Markets to Watch: Overall Real Estate Prospects

	Investment	Development		Investment	Development
1 Austin (3, 1)	3.76	3.61	40 Houston (40, 46)	3.04	2.47
2 Dallas/Fort Worth (1, 5)	3.78	3.52	41 Cincinnati (42, 40)	2.74	2.64
3 Portland, OR (8, 2)	3.69	3.59	42 Columbus (43, 41)	2.64	2.58
4 Seattle (2, 8)	3.77	3.49	43 Palm Beach (46, 43)	2.62	2.54
5 Los Angeles (6, 6)	3.71	3.52	44 New York—other boroughs (41, 50)	2.75	2.37
6 Nashville (9, 3)	3.67	3.55	45 Sacramento (48, 44)	2.57	2.49
7 Raleigh/Durham (13, 4)	3.65	3.53	46 Boise (53, 42)	2.51	2.55
8 Orange County (5, 10)	3.73	3.45	47 Jacksonville (50, 45)	2.53	2.48
9 Charlotte (12, 7)	3.65	3.52	48 Kansas City, MO (44, 51)	2.63	2.37
10 San Francisco (7, 13)	3.70	3.45	49 Westchester, NY/Fairfield, CT (47, 47)	2.58	2.42
11 Denver (15, 9)	3.64	3.47	50 Detroit (45, 54)	2.63	2.35
12 Boston (10, 14)	3.67	3.44	51 Louisville (49, 49)	2.55	2.39
13 New York—Manhattan (4, 20)	3.75	3.34	52 Honolulu (51, 52)	2.52	2.36
14 Oakland/East Bay (16, 12)	3.63	3.45	53 St. Louis (56, 48)	2.44	2.41
15 Atlanta (11, 15)	3.66	3.42	54 Oklahoma City (55, 56)	2.46	2.33
16 New York—Brooklyn (14, 19)	3.64	3.37	55 Cleveland (57, 57)	2.44	2.33
17 San Jose (20, 11)	3.56	3.45	56 Knoxville (58, 58)	2.43	2.31
18 Salt Lake City (18, 17)	3.59	3.39	57 Des Moines (59, 53)	2.38	2.36
19 Chicago (17, 21)	3.59	3.33	58 Madison (54, 60)	2.47	2.24
20 Tampa/St. Petersburg (23, 16)	3.52	3.41	59 New Orleans (52, 64)	2.51	2.18
21 Phoenix (19, 23)	3.58	3.31	60 Cape Coral/Fort Myers/Naples (63, 59)	2.33	2.27
22 Orlando (27, 18)	3.49	3.37	61 Las Vegas (61, 65)	2.36	2.18
23 San Diego (24, 22)	3.52	3.31	62 Tucson (65, 62)	2.3	2.22
24 Washington, DC—District (21, 28)	3.55	3.25	63 Gainesville (73, 55)	2.16	2.33
25 Miami (25, 26)	3.51	3.27	64 Albuquerque (67, 63)	2.28	2.21
26 Indianapolis (26, 27)	3.50	3.27	65 Milwaukee (68, 61)	2.26	2.23
27 Philadelphia (22, 30)	3.53	3.23	66 Tallahassee (60, 68)	2.38	2.11
28 Pittsburgh (29, 25)	3.42	3.28	67 Memphis (66, 66)	2.29	2.17
29 Washington, DC—Northern VA (30, 29)	3.42	3.24	68 Birmingham (62, 70)	2.33	2.01
30 Northern New Jersey (28, 32)	3.47	3.17	69 Richmond (71, 67)	2.18	2.16
31 Charleston (32, 24)	3.35	3.29	70 Omaha (69, 69)	2.19	2.07
32 San Antonio (31, 31)	3.36	3.22	71 Spokane, WA/Coeur d'Alene, ID (64, 77)	2.31	1.84
33 Washington, DC—MD suburbs (34, 33)	3.32	3.13	72 Tacoma (70, 73)	2.18	1.96
34 Baltimore (33, 34)	3.33	3.06	73 Portland, ME (72, 72)	2.16	1.96
35 Fort Lauderdale (35, 35)	3.25	3.05	74 Virginia Beach/Norfolk (75, 71)	1.99	1.98
36 Inland Empire (38, 36)	3.19	3.03	75 Providence (74, 75)	2.04	1.88
37 Greenville (37, 37)	3.20	3.00	76 Deltona/Daytona Beach (76, 74)	1.97	1.93
38 Minneapolis/St. Paul (36, 38)	3.24	2.93	77 Hartford (77, 78)	1.9	1.76
39 Long Island (39, 39)	3.04	2.66	78 Buffalo (78, 76)	1.75	1.87

Note: Numbers in parentheses are rankings for, in order, investment and development.

Source: *Emerging Trends in Real Estate 2017* survey.

South Central

"In a compressed cap rate environment with low interest rates, I like markets that can generate attractive cash-on-cash returns. That is very difficult in the gateway markets, but more possible in markets like Dallas and Austin."

Austin (1). The capital of Texas has consistently ticked the majority of the top boxes related to recent real estate market attractiveness. The market has benefited from a diverse economy that was affected in a minimal way by the global financial crisis, a growing population base made up of an educated labor force,

and the undeniable "hip" factor that makes Austin attractive to the millennial-dominated workforce.

Despite Austin's growing popularity, it remains a comparatively small market in terms of investment opportunities. While Austin is unlikely to attract a meaningful amount of off-shore capital, it tops many domestic investors' wish lists. This makes the market very competitive. Despite the amount of competition, local, regional, and national real estate participants operate in relative harmony in the market. This cooperation has helped keep adequate levels of debt and equity capital available for investment opportunities.

Exhibit 3-2 U.S. Markets to Watch: Homebuilding Prospects

1	Raleigh/Durham	4.31	40	Knoxville	3.00
2	Charleston	4.25	41	Memphis	3.00
3	Portland, OR	4.19	42	Tacoma	2.98
4	Nashville	4.06	43	Detroit	2.97
5	Orange County	4.06	44	Cincinnati	2.88
6	Tampa/St. Petersburg	4.00	45	Long Island	2.81
7	Washington, DC—District	4.00	46	Cleveland	2.80
8	Philadelphia	4.00	47	Boise	2.80
9	Dallas/Fort Worth	3.95	48	Oklahoma City	2.80
10	Los Angeles	3.93	49	Milwaukee	2.80
11	Austin	3.88	50	Spokane, WA/Coeur d'Alene, ID	2.80
12	Seattle	3.88	51	Providence	2.80
13	Charlotte	3.86	52	Baltimore	2.79
14	Boston	3.84	53	St. Louis	2.75
15	Oakland/East Bay	3.83	54	Columbus	2.70
16	Washington, DC—MD suburbs	3.83	55	Westchester, NY/Fairfield, CT	2.63
17	Denver	3.81	56	Louisville	2.63
18	Orlando	3.80	57	Palm Beach	2.57
19	Atlanta	3.79	58	Fort Lauderdale	2.54
20	Salt Lake City	3.76	59	Cape Coral/Fort Myers/Naples	2.54
21	Indianapolis	3.72	60	Des Moines	2.52
22	Washington, DC—Northern VA	3.72	61	Richmond	2.50
23	San Antonio	3.72	62	Miami	2.45
24	San Jose	3.67	63	Hartford	2.45
25	Las Vegas	3.66	64	Greenville	2.40
26	Phoenix	3.62	65	New York—Brooklyn	2.37
27	San Francisco	3.62	66	New York—other boroughs	2.28
28	Chicago	3.59	67	Madison	2.28
29	San Diego	3.55	68	Albuquerque	2.22
30	Northern New Jersey	3.41	69	Tucson	2.10
31	Kansas City, MO	3.38	70	Birmingham	2.10
32	Pittsburgh	3.33	71	Portland, ME	2.10
33	Honolulu	3.27	72	New Orleans	2.06
34	Jacksonville	3.26	73	Tallahassee	2.00
35	Minneapolis/St. Paul	3.25	74	Omaha	1.88
36	New York—Manhattan	3.23	75	Gainesville	1.88
37	Inland Empire	3.15	76	Buffalo	1.75
38	Sacramento	3.12	77	Virginia Beach/Norfolk	1.75
39	Houston	3.08	78	Deltona/Daytona Beach	1.75

Source: *Emerging Trends in Real Estate 2017* survey.

The interest in Austin has spawned a phrase that rivals the city's own "Keep Austin weird" slogan. The real estate equivalent is: "I want to find the next Austin." This reputation does, however, come at a price. ULI focus group participants expressed concern about transportation issues that continue to be a problem in a rapidly growing market. In addition, the cost of living and the cost of doing business in Austin have been on the rise. While these costs are still competitive with those seen in other top secondary markets, the uptick has not gone unnoticed in the market.

The 2017 outlook for major property sectors remains good. The housing market, both multifamily and single-family, appears to be making adjustments to match supply with the requirements and locations desired by the changing population base. To address transportation concerns, the market is likely to continue to see more mixed-use development not only to bring compatible uses together, but also to enhance the experiential feel of developments. Austin remains focused on encouraging an environment where local and national tenants can coexist.

Dallas/Fort Worth (2). The Dallas/Fort Worth metro area is once again near the top of the *Emerging Trends in Real Estate*® rankings. Dallas/Fort Worth may well be an 18-hour market that is rapidly approaching the level where it is considered as a core primary market. The economy survived the global financial crisis better than most other U.S. markets, and real estate fundamentals continue to avoid the boom/bust behavior that has plagued the market in the past.

The Dallas/Fort Worth area is perceived as a business-friendly environment that offers an attractive cost of doing business, an adequate and well-educated workforce, and world-class transportation access by air, rail, and road. The labor force continues to be supported by an attractive cost of living that continues to attract in-migration. The economy has continued to diversify and has exposure to growing medical facilities and an expanding technology sector. A number of colleges and universities in the metro area support the education level of the workforce, while coordination with the community college network is used to train workers for positions that do not require a four-year college degree.

The Dallas/Fort Worth metro area has avoided becoming a victim of its own success, although rising demand is pushing up the price of housing in the market. Once known as exclusively as a suburban market, Dallas is enjoying more growth of infill areas and the inner-ring suburbs. The market is also using smaller lots and higher density to keep housing affordable. The suburbs in Dallas/Fort Worth are accessible, if not exactly walkable. Dallas/Fort Worth residents value improved access to amenities even if it is by personal vehicle. Adequate and convenient parking is a key element to meeting this need.

San Antonio (32). Will San Antonio, Texas, be one of the markets ready to make a jump in investor interest in 2017? Institutional investors have begun to look for opportunities in this very affordable market located just an hour south of this year's number-one-ranked market. San Antonio is gaining experience in multiple product types that have generated a significant amount of buzz over the past few years. San Antonio is seeing activity in shared office work locations in the CBD, urban residential, historic redevelopments, and top-tier distribution, and a move by some suburban employers of at least a portion of their employers downtown.

San Antonio is a very affordable market from both a cost of living and a cost of doing business standpoint. Job creation during this cycle has been primarily organic, with companies already in the market adding new jobs. The market would benefit

if it could begin to increase the number of company relocations from other areas. ULI focus group participants noted that improving the local education system to help meet the needs of potential employers would be another way to make San Antonio attractive as a relocation destination.

Houston (40). The Houston real estate market is dealing with a period of uncertainty, with participants waiting to see how the energy industry will recover and how the market will deal with new space supply that was started when the Houston economy was benefiting from high oil prices. Employment growth has contracted, but not by as much as anticipated. Employment losses in energy-related exploration and services companies have been offset by growth in the services and leisure and hospitality sectors. While employment growth has remained positive, the mix of jobs has skewed toward lower-paying industries.

The 2017 outlook for Houston is muted. Employment growth should stay positive, and the energy industry may stabilize if energy prices can hold recent gains. Higher prices could lead to a cautious return of the exploration and production sector of the industry. But the slower economic growth is likely to hinder the housing market, with growth in permits and starts projected to be flat. The multifamily market will need to deal with a significant amount of new supply that is projected to be delivered over the next 24 months.

Oklahoma City (54). The largest city in Oklahoma is in a position similar to that of the other energy-dominated economies in the *Emerging Trends* survey. The outlook for the market hinges on one's specific outlook for energy prices. The Oklahoma City economy has yet to show the full effects of the energy industry cutbacks due to severance packages given to employees who lost their jobs during the downturn. The market is waiting to see if the energy industry recovers before the full impact of the job cuts is felt. The question then is what will the energy industry look like? One ULI focus group participant noted: "We have found all the oil, now it is just a mining operation." The jobs needed going forward may be different, with less exploration-based employment needed.

The Oklahoma City market is similar to other tertiary markets in that the inventory of investable assets is comparatively small. This may be a benefit as the economy slows, since the market will not be flooded with unused inventory, but ULI focus group participants noted that the lack of existing inventory suitable for ecommerce-related activities has been a negative when national distribution firms are looking at the market.

New Orleans (59). The economy of the largest city in Louisiana continues to be bifurcated. On one hand, tourism is driving employment in the leisure and hospitality sector, and health care is adding jobs as more Louisiana residents qualify for care under the Medicaid expansion. On the other hand, the New Orleans energy and shipping industries have been shedding jobs due to falling energy prices and a glut in global energy supply.

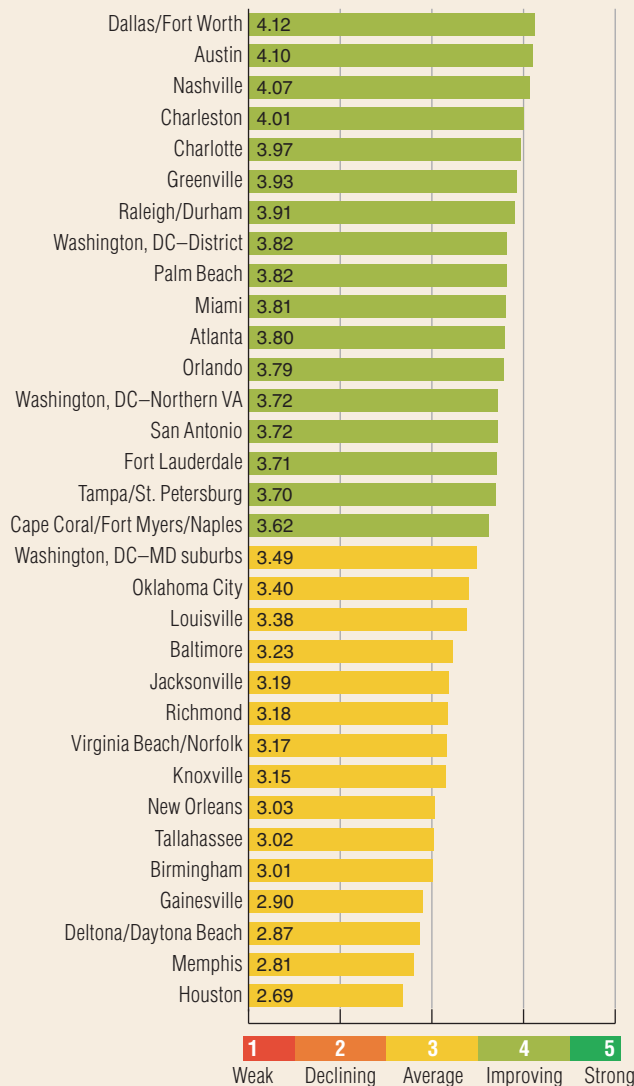
New Orleans is one of the five markets in the survey where total employment has yet to return to pre-Great Recession peak levels. Projected growth in 2017 will not help remedy that condition. Job growth in 2017 is expected to remain in the services and leisure and hospitality sectors. Job losses in the energy sector should slow, but recovery may be hindered by Louisiana's higher average production costs. Shipping will struggle as the strong U.S. dollar affects exports, but it may get a boost from a rise in the demand for imported goods by U.S. consumers. Development activity has been limited to projects that meet the needs of the local population. Examples include medical office, select retail, and multifamily.

Northwest and Hawaii

"Still like the upside potential of markets like Seattle and Portland. [They] look like more affordable versions of San Francisco/San Jose to us."

Portland (3). Oregon's largest city is projected to continue to enjoy the strong economic and demographic growth that has propelled the market to the upper levels of the *Emerging Trends* survey. New residents continue to be drawn to the market for the high quality of life, while employers enjoy

Exhibit 3-3 Local Outlook: South and Mid-Atlantic



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Average score of local market participants' opinions on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

tapping into comparatively lower business costs and a well-educated labor force.

Professional, technical, and business services have been the backbone of the Portland economic recovery since 2011, with growth in these sectors easily outpacing that seen at the national level. These jobs not only have been important to attracting new residents to the market, but also have helped push up

incomes in the metro area due to the higher wages they pay. The pace of tech growth may slow due to a tightening labor market, but the pace of growth is expected to remain above the national average.

The combination of rising population and incomes has been particularly beneficial to consumer services, retail, and the housing market. Portland home price appreciation has been leading the nation,

and builders are having a difficult time keeping up with current demand. Despite rising prices for single-family homes, rent is still relatively affordable in Portland. The market should have little problem absorbing the current number of units currently under construction.

Seattle (4). The fundamentals for the success of the Seattle market appear well established for another year. While the more traditional manufacturing sector may see some slowdown due to cuts in aerospace production, technology-related sectors of the economy are still growing rapidly.

The Seattle technology industry is dominated by information technology firms focused on cloud computing and those focused on internet retailing. Tech hiring in Seattle has been so competitive that the average hourly pay rate for an IT worker is now \$10 higher than the national average. The outlook for tech hiring remains strong as firms continue to locate to the market to take advantage of the proximity to industry leaders. This is evidenced by the increase in venture capital flows to the market over the past 12 months.

Seattle has lowered its dependence on the aerospace industry from historical levels, but current cuts will still have an impact on the market. The job losses, along with the eventual loss of income, will be a negative to future economic activity.

Population growth in Seattle is projected to remain at nearly twice the national rate. This pace is impressive given the current size of the Seattle metro area, at around 3 million residents. The combination of strong job growth and rising incomes is projected to push household formation up in 2017, which will increase demand for both single- and multifamily housing. The multifamily market will need the higher level of demand since the market will add 5 percent to its existing inventory.

Honolulu (52). The Honolulu market has gotten a boost from lower energy prices. The subsequent lower air fares have increased the number of visitors from the mainland and abroad. The potential outlook for higher levels of tourism could also help boost

construction employment. Construction employment has been supported by pent-up demand in residential construction and several new commercial projects, including retail and hospitality aimed at visitors. The rise in construction is putting a strain on the labor market and is forcing builders to raise wages to attract workers. The higher labor costs could slow construction in 2017.

Spokane, Washington/Coeur d'Alene, Idaho (71). The Inland Northwest region, composed of the Spokane, Washington, and Coeur D'Alene, Idaho, metro areas, has a relatively diverse economic base. The Spokane economy is more industrial oriented while Coeur D'Alene's is more consumer focused. Growth in the Spokane market will be challenged by cutbacks in the aerospace manufacturing sector due to production cuts planned in the industry. Spokane is a regional center for health care, financial services, and education. Expected growth in these sectors could help offset the economic losses due to lower manufacturing output. Consumer spending growth due to rising regional incomes is providing support to consumer industries in Coeur D'Alene. Population growth in the market, particularly residents over the age of 65, is increasing demand for health care services jobs. These types of jobs in Coeur D'Alene tend to be in the mid- and high-wage category.

Tacoma (72). The Tacoma, Washington, market will rely more on services employment in 2017, while growth may be slower in the trade and transportation industries. The level of activity at the Port of Tacoma is expected to slow in the near term, with less traffic from China and other emerging economies. The port is, however, investing in the infrastructure needed to handle larger vessels that will be able to move through the widened Panama Canal. Over the longer term, this investment should allow the port to hold its market share of trans-Pacific trade. Financial services employment is expected to grow in 2017. Tacoma is seeing some benefit as employers view the market as a lower-cost alternative to Seattle. Employers can take advantage of the lower real estate and labor costs while still serving Greater Seattle and the Pacific Northwest region.

California

"Choose your side on the San Francisco debate: You either feel the market is too dependent on tech and is overheated, or you see a market with prospects for sustainable growth and limited new supply."

Los Angeles (5). In the current real estate cycle, the comparative position of the most populous city in California could be attracting capital from other core markets in the United States. Investors who have typically been focused on East Coast markets are looking at opportunities on the West Coast. It could be argued that the market recovery in Los Angeles may be at an earlier stage than markets such as New York. Investors see this as an opportunity to benefit from more remaining upside in the Los Angeles market.

Property fundamentals continue to improve in Los Angeles; and with the exception of a few submarkets and neighborhoods, new supply remains in check. Development in Los Angeles has never been without certain challenges, but many locales within the metro area are becoming more organized and resistant to new development. This has kept the amount of new supply in check, but it could eventually have negative consequences on housing development. The continued development of the mass transit system in the metro area is opening up opportunities for development within proximity of the transit line. According to the ULI focus group participants, a number of employers may not consider a location that is not within a certain distance to mass transit and accessible to reasonably priced housing.

The Los Angeles economy continues to transform itself into a technology center. Technology and content development associated with the entertainment industry is increasingly being done by firms based in Los Angeles, while more of the production activities are outsourced to other locations. The rise of the technology industry is attracting interest from northern California firms that are attracted to Los Angeles's comparatively lower real estate costs and access to an additional labor pool. The economy is also benefiting from the aggregation of research universities that are located in the metro area.

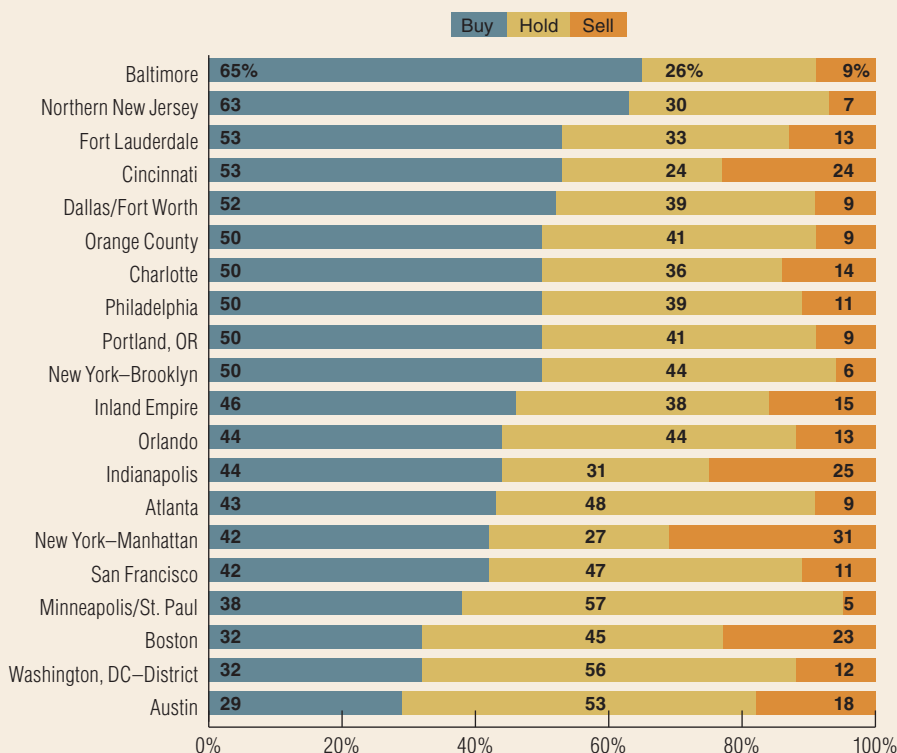
Orange County (8). Survey respondents feel good about the 2017 prospects for the Orange County market. The diverse economy is built on financial services, technology, and tourism. The financial services and technology industries are supporting high- and middle-wage job growth, which is pushing up the level of personal income in Orange County. The higher incomes are helping spur activity in the housing market.

Orange County is viewed as an affordable tech location when compared with other California tech centers. The combination of a research university, access to venture capital, and a trained workforce is driving the creation of startups in software, medical device, and biotechnology firms. The Orange County market is also benefiting from access to the ports of Los Angeles and Long Beach. The import/export business in Orange County has resulted in the industrial market hitting historically low vacancy rates and driving rent growth back to pre-Great Recession rates. With new development locations limited, Orange County could be one of the first markets in the United States to develop multistory industrial (although a number of regulatory and zoning hurdles will need to be cleared before this can happen).

San Francisco (10). Over the past few years, San Francisco has arguably been one of the most attractive markets in the United States, consistently being rated at the top of the *Emerging Trends* survey. The market is facing the challenge of convincing the rest of the market that a boom like the market has experienced does not necessarily need to be followed by a bust. Recent growth may not have been sustainable, but it doesn't mean that normalized growth is a bad thing.

The recent strength of the San Francisco economy has created shortages in labor, housing, and commercial space, resulting in a quick rise in costs. San Francisco is recognized as a highly regulated operating environment, which can make it a challenge to address issues such as housing and commercial space shortages. The housing industry in particular is seeing a rise in organized resistance. Social media and other tools have enabled groups to organize quickly to oppose proposed developments.

Exhibit 3-4 U.S. Industrial Property Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Cities listed are the top 20 rated for investment in the industrial sector; in this exhibit, cities are ordered according to the percentage of “buy” recommendations.

San Francisco remains attractive to foreign investors. Foreign investors in the market have shown an interest in investing in longer-term development projects and have not been limited to existing properties. The bottom line for San Francisco is that while growth may be slower in the next few years compared with the last few years, the pace of real estate activity is projected to be strong.

Oakland (14). The economy of Oakland is easily outperforming the nation. The city is getting a significant boost from firms either relocating from the more expensive markets of San Francisco and San Jose or those firms that choose to start in Oakland to take advantage of the lower cost of doing business and provide their employees with a lower cost of living. This surge of employment is pushing commercial space rents above previous peak levels.

The Oakland economy is surprisingly diverse. Tech industry concentration is over twice that of the U.S. average, but the city also has higher concentrations in business and professional services, education and health services, and an equal concentration in goods-producing industries. The strong economic activity in the market is driving both commercial and residential construction. This should add well-paying jobs to the economy in 2017.

San Jose (17). San Jose is clearly a tech market, but the technology industry there is relatively diverse. The market is home to firms focused on software, hardware, the consumer market, the business market, established global heavyweight companies, and entrepreneurial startups. This combination has made the San Jose economy one of the fastest growing in the United States. The result is a very competitive labor market that has driven

the jobless rate well below 4 percent and pushed income gains well above the national average.

The number of tech firms located in San Jose increases the competition for real estate in the market. To compete with markets such as San Francisco, San Jose has increased the focus on developments near transit stations, amenities, and housing. The strong job market and limited supply have made the San Jose market one of the most expensive in the United States. The amount of housing construction will increase in 2017, with more emphasis on multifamily units to help meet rising demand.

San Diego (23). San Diego is another thriving California market that is benefiting from growth in the technology industry. The tech industries showing the most growth in San Diego are data science, military IT, biotech, medical devices, and software. The majority of the tech influence is showing up in employment growth in professional and business services and the health services sectors of the economy. The concentration of jobs in higher-paying industries is putting upward pressure on wages as the local labor market tightens.

Despite having one of the highest costs of living in the United States, San Diego has a good demographic outlook for 2017. Population growth and household growth are projected to be above the national average. Housing is expensive in San Diego, but strong employment and income growth should drive demand for it. To meet this need, permits and starts are both projected to rise in the coming year.

Inland Empire (36). The Inland Empire is again on the leading edge of the recovery in the industrial and distribution market. Strong job growth in the market is being driven by the expansion of warehousing and logistics operations in the market. The Inland Empire remains the low-cost alternative in southern California. While job growth has been strong, the jobs being created are generally lower-paying ones. This keeps relative income levels below state and national levels.

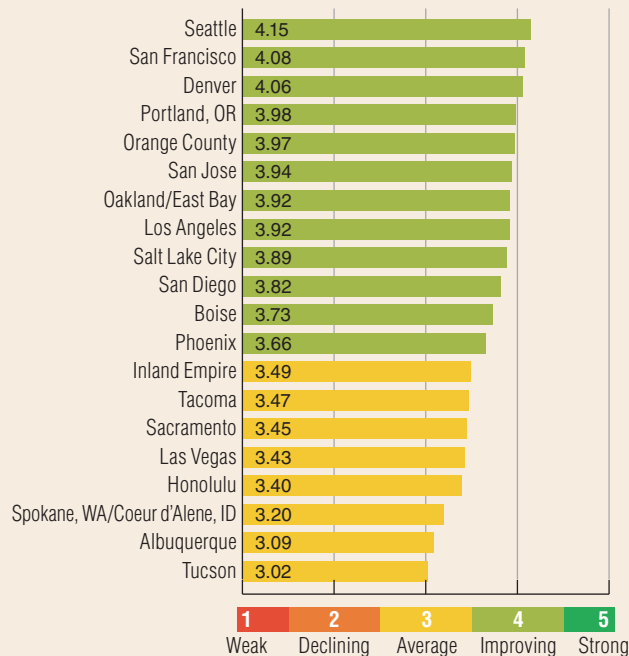
The outlook for the Inland Empire remains strong, but is not without risks. While the market is heavily dependent on the level of container traffic into the port of Los Angeles/Long Beach, the port is in the midst of infrastructure upgrades that should allow it to maintain its position as the leading West Coast port. This should support population and employment growth. The exposure to import levels does put the market at risk if the global economy weakens or if the United States were to slip into recession.

Sacramento (45). Sacramento joins the markets that have seen an increase in nonlocal investors showing an interest in the office and industrial market. The search for yield is behind the rise in interest, and Sacramento has an inventory of attractive product that has attracted interest. What the market does not have is new product since developers have been cautious about undertaking private sector projects. Sacramento, however, will see development activity since the state of California has allocated funds to build out its office portfolio. The new state projects will ultimately result in the older properties becoming available and could offer an opportunity for redevelopment.

The comparative pace of the economic recovery has been slower in Sacramento, but the economy now appears to be on a positive growth trend. The medical service sector is adding better-paying jobs, which is spurring demand for housing. Sacramento homeowners hurt by the single-family housing bust have been slow to return to the market, and a number have chosen to be renters rather than take on the risk of ownership. This has kept upward pressure on rental market rents.

The Sacramento market continues to explore ways to convey its identity to the rest of the market. Outside of being the state capital, the market could benefit greatly from enhancing the relationship with local universities and the benefits that these institutions could provide the local economy.

Exhibit 3-5 Local Outlook: West Region



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Average score of local market participants' opinions on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

South

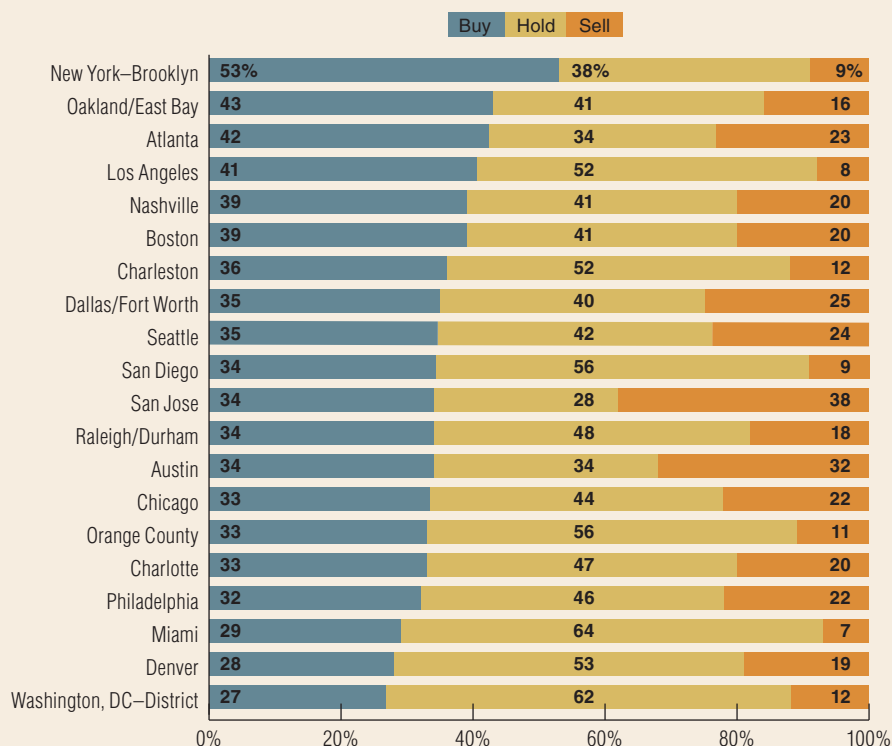
"The Southeast looks positioned to do well for the next five to ten years. North Carolina, South Carolina, and Tennessee all have their acts together."

Nashville (6). The capital of Tennessee has generated as much conversation as any market during the *Emerging Trends* interviews over the past two years, and interest in this 18-hour market remains high again in 2017. Nashville maintains its hip factor, which continues to be evidenced by the high percentage of graduates from Nashville-area colleges and universities who choose to stay in the market after graduation. The diverse economy is driven by health care, technology, tourism, and education. All of these sectors have been job creators during the economic recovery and are expected to continue to create jobs in 2017.

Nashville is an example of a market that has transitioned to an upper-tier secondary market. The increased level of investor interest in Nashville increases the perceived liquidity of the market, which only makes it more attractive to nonlocal investors. Debt and equity capital continues to be available from both local and national sources.

The transition to an upper-tier secondary market has created some issues for Nashville. The primary area of concern is that national developers could overbuild the market. This is currently a concern in the industrial and multifamily sectors. At the same time, the increase in overall real estate activity in the market is putting pressure on the availability of appropriately zoned land for all property types. The rising costs of construction labor and building supplies also are keeping new development at lower levels. Despite rising demand for office space, new construction remains at manageable levels.

Exhibit 3-6 U.S. Office Property Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Cities listed are the top 20 rated for investment in the office sector; in this exhibit, cities are ordered according to the percentage of “buy” recommendations.

Atlanta (15). The capital and largest city of Georgia is one of the top 18-hour cities in the survey and a top market for real estate investment during expansion cycles. The pace of recent economic growth combined with moderate levels of new supply during the recovery has increased interest in Atlanta from a growing number of investors in multiple property types. Investment from off-shore investors has been limited but is indirectly affecting the Atlanta market. As foreign investors have increased their interest in the six core U.S. markets, more domestic investors have shifted their focus to top secondary markets such as Atlanta.

Similar to many markets in this year’s survey, the Atlanta market is focused on a number of key issues that will drive the future of the market. Recent legislation will provide an increased and steady source of state funding for a range of transportation

improvements. Managed lanes along transportation corridors are likely to improve investment opportunities in the metropolitan area. Participants in the ULI focus group mentioned that investors are very interested in the quality of local schools as part of their due diligence for potential investments. The rise in the number of school-age children has all parts of the metro area focusing on how to improve the overall education system.

Atlanta is a diverse market, and the market participants there feel strongly that “what works in one neighborhood may not work well in another neighborhood.” Atlanta developments focused on urban characteristics such as walkability and common green space are being favorably received in more infill locations within the market. Conversely, anticipated improvements to transportation corridors and higher-rated school systems have opened

opportunities for developments in traditional suburban neighborhoods.

Charleston (31). Charleston, South Carolina, could be considered an emerging 18-hour city with an economy that is firing on all cylinders going into 2017. Strong demographic growth, the expansion of manufacturing facilities, improved transportation and logistics access, and a growing tech services industry are all driving the Charleston economy. Population and household growth is projected to be strong in 2017. In addition, Charleston is becoming a preferred destination for college graduates between the ages of 25 to 34. The younger well-educated workforce is facilitating the growth of Charleston’s expanding tech base. High-tech employment is projected to expand at a faster pace than the national average in 2017. On the manufacturing front, one automaker is starting a major expansion while another is opening a new production facility. Auto production activity could lead to an influx of new parts suppliers locating in the region. Finally, the Port of Charleston should benefit from the Panama Canal expansion. Planned capital expenditures at the port will improve the competitiveness of the operation and further establish Charleston’s reputation as a logistics hub.

Greenville (37). Greenville, South Carolina, is a tertiary market with a number of advantages that could raise its profile for potential real estate investment. Advantages offered by the Greenville market include a central location, lower business costs, and a growing educated workforce. The area has an established manufacturing base that is seeing expansion to existing facilities as employers commit to the metro area. Greenville could also benefit from more activity at the Inland Port in Greer, South Carolina. The port solidifies the area as a regional manufacturing and transportation hub, and the opportunity to expand could come as a direct benefit of the Panama Canal expansion. Greenville also appears to be doing an improved job of retaining college graduates, with the share of residents older than 25 with at least a bachelor’s degree rising 10 percentage points since 2000. The improvement in the quality of the labor force has helped the metro area attract more office-using industries.

Louisville (51). The Louisville, Kentucky, market is the beneficiary of two significant consumer trends: Americans' desire to drive light trucks and the continued rise in e-commerce. Local light truck manufacturing has been increasing in Louisville, and automakers have signed agreements with the state of Kentucky to expand production in exchange for tax incentives. Louisville is a hub for logistics activity and major distributors and package delivery firms are entering or expanding their presence in the market. Louisville-based firms in the financial activities sector, particularly health insurers, could get a boost from the increase in Medicaid enrollees. Recent job growth in Louisville has been in higher-paying occupations, which is pushing up incomes. These higher incomes should be a tailwind for retailing and the housing industry.

Knoxville (56). Knoxville, Tennessee, is another market in the survey that is enjoying prosperity in the right places. The local manufacturing sector is growing, office firms are investing and expanding in the urban core, and wage growth is being boosted by the creation of mid- and high-tier income positions. Behind it all is a strong public sector, including the U.S. Department of Energy and a large public university, that provides a solid base for the overall economy. Auto-related manufacturing has been adding jobs in Knoxville, which is boosting the industrial sector. Knoxville's urban core is benefiting from corporate expansions, resulting in more residential and retail projects being added to the area. The majority of jobs created in Knoxville have been above the low-wage pay tier, which has helped push up incomes in the metro area. The higher income levels along with an improved outlook for household formations should push up housing demand.

Memphis (67). While recent economic growth has been slower than the national average, Memphis, Tennessee, has a strong core of key industries in the retail, service, distribution, and medical sectors. The city has identified the medical sector as a strategic area and has devoted resources to expanding the sector. The continued growth of e-commerce will drive growth in the package distribution sector. A corporate relocation to the downtown area should also help support demand for new urban residential projects in Memphis. The

development and implementation of a bike-share program aimed at residents, rather than tourists, is designed to make alternative transportation more available to all segments of the population.

The Memphis market is dealing with a number of issues that have been raised as concerns throughout multiple markets in this year's survey. These issues include slower economic growth, infrastructure shortcomings, how to address education concerns, and issues coordinating multiple government entities. Memphis is approaching these issues in a number of positive ways. Public/private partnerships and philanthropic infrastructure investments are helping revitalize older neighborhoods. Memphis also has a number of authentic buildings within its core that could be repurposed to spur urban development.

Birmingham (68). The most populous city in Alabama is one of the five markets in the *Emerging Trends* survey where current employment levels are still below the previous cyclical peak. Employment growth is projected to be positive in 2017, but at a rate that is nearly half the national average. The main drag on employment is expected to come from manufacturing. The Birmingham steel industry is struggling, with reduced demand from the energy industry that is purchasing less heavy equipment for exploration, and the strong dollar that is making U.S. steel uncompetitive in the global market. The outlook for services employment is more positive, however, with professional and business services as well as health and educational services expected to be the leading job generators. The Port of Birmingham also could be a future bright spot to the economy. The establishment of the Birmingham—Jefferson County Port Authority will seek to develop and expand operations at the river port, offering upside opportunities for transportation and warehousing activities.

Mid-Atlantic

“Strong markets include Raleigh, Denver, Dallas, south Florida, Charlotte, Nashville, and Seattle. These locations have good job and population growth. These markets

were susceptible to too much supply in the past; the demand was always there. This cycle, new supply hasn't gotten out of hand.”

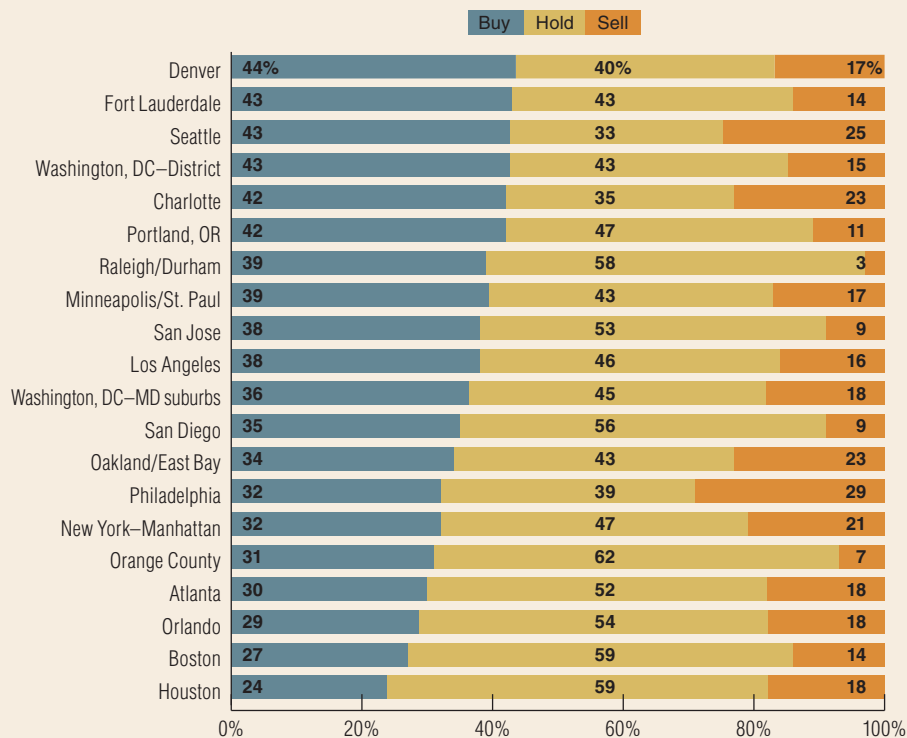
Raleigh/Durham (7). The Raleigh/Durham market in North Carolina ticks a lot of the boxes for real estate success: affordable living and business costs, a concentration of research universities and colleges, home of the state capital, and a moderate climate. These features continue to draw interest from the real estate investment world. The combination of these features makes Raleigh/Durham a strong example of an 18-hour market.

The Raleigh/Durham area is an example of a market that is thriving without having a dominant urban core. What the area offers are multiple neighborhood cores that residents find attractive. One ULI focus group participant noted, “If residents don't have a true live/work/play option, they will often choose live/play and then opt to commute to work.” This mind-set is helping spur a number of live/play neighborhoods throughout the market.

All property sectors continue to show improvement in the Raleigh/Durham market. New development is showing an increased interest in mixed use. While Raleigh/Durham is still an auto-dependent market, new plans are being put in place to allow residents and workers the option of combining work/play, work/live, or live/play in one location. This change in mind-set is even evident in new development at traditional campus-style business parks.

Charlotte (9). The largest city in North Carolina has been one of the top 18-hour cities in the *Emerging Trends* survey over the past two years, with survey respondents attracted to employment growth that has been distributed over multiple industries. Charlotte has been growing as the financial market hub for the Southeast and is benefiting from a growing airport activity. The market has also been a leader in infill development, with the downtown area seeing an increase in residential options and more development in a number of inner-ring suburban sites. To go along with these positive attributes, the market is very aware of a number of challenges that will need to be addressed in 2017.

Exhibit 3-7 U.S. Retail Property Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Cities listed are the top 20 rated for investment in the retail sector; in this exhibit, cities are ordered according to the percentage of "buy" recommendations.

Challenges facing the Charlotte market are the political fallout associated with House Bill 2, signed into law on March 23, 2016. Along with the more highly publicized sports and performance event cancellations, the truth is that the adoption of this bill has slowed interest in the market from a number of large national commercial real estate users. ULI focus group participants also expressed a certain level of frustration with the permitting process in Charlotte, although one participant opined that it may just be part of the growth process: "It is evolution: more people, more rules."

In spite of the identified challenges, the Charlotte market remains strong and market participants are cautiously optimistic this will continue. Industrial is cited as being an extremely hot product type in Charlotte for 2017, while the office market is expected to continue to see growth in urbanized

suburban locations. The multifamily market is in a bit of a holding pattern as the market waits to see the potential impact of the delivery of four downtown office buildings on demand for the new multifamily units currently under construction.

Washington, D.C.: the District (24), suburban Virginia (29), suburban Maryland (33). The D.C. metro area—composed of the District of Columbia and the suburbs in Maryland and Virginia—appears to be bouncing back from the effects of the government shutdown in 2013 and subsequent budget cuts. The dynamics of the recovery in the office market have been slightly different than in previous cycles, however. Organic growth from professional service firms is filling space that was returned to the market when the government began cutting space. At the same time, the market has felt the effects of occupiers moving

to more-open floor plans and increasing efficiency of office space use.

The Virginia suburbs are enjoying growth as technology companies are attracted to space that was previously leased by government tenants. The Virginia suburbs are also benefiting from improved transportation infrastructure that has created stand-alone urban centers, where lenders are underwriting the better buildings as core. These stand-alone centers have improved the area as a gateway to the District's urban core. Suburban Maryland, with access to six transit lines into the District, is also seeing increased demand in key neighborhoods with good access to the rest of the metro area. One of the key attractions of the D.C. metro area, in general, is the desirability of the neighborhoods in the District and in the Maryland and Virginia urbanizing suburbs and in-migration to these areas. The metro area continues to drive demand for housing and retail. Tight fundamentals in certain suburbs are leading to discussions about the potential for speculative office developments.

Baltimore (34). The largest city in Maryland is beginning to shake off the effects of the last round of fiscal austerity. Federal government job growth is rising again, but, of greater importance, Baltimore is seeing growth in the professional and technical services sector. These jobs tend to be higher paying and will have a positive impact on downstream industries such as leisure and hospitality, retail, and construction. Baltimore will get an immediate boost from investment in a major infrastructure project since transit improvements in the area will increase construction employment. Longer-term, these projects will alleviate traffic congestion and improve the area to future development.

Richmond (69). The Richmond, Virginia, market is enjoying good employment growth, with office-using industries adding employees at twice the national average growth rate. The current unemployment rate is below the national average, despite recent increases in the size of the labor force. If there is a downside to the employment growth, it is that it is skewed to lower-wage administrative support

services. Still, the office market should get a boost from the rise in office-using employment.

Planned transit enhancements and the introduction of shared-ride services are enhancing the urban feel of Virginia's capital and are beginning to give the market attributes that are common to 18-hour cities. The market also has an abundance of historic buildings, resulting in the rise of the hip factor of downtown Richmond. Another result is that companies are now looking at relocating at least some of their workforce downtown from the suburbs because that is where workers want to be. A ULI focus group participant requoted what they had heard about Richmond: "If San Diego and Portland had a baby, it would be Richmond."

It is possible to reach 40 percent of the U.S. consumer market within a day's drive from Richmond and, as consumer demand has risen in the Mid-Atlantic region, activity at the multimodal inland distribution services at the Port of Richmond has increased. The area has seen an increase in warehousing and packaging operations. The improvement in economic activity combined with lower levels of supply could lead to an increase in homebuilding in 2017.

Virginia Beach/Norfolk (74). Employment growth in the Virginia Beach/Norfolk market is a mixed story. Overall levels of employment growth are below the national average, but the mix of jobs being created is skewed toward higher-paying occupations. This is pushing average hourly earnings up at a rate twice the national growth rate.

Jobs are now being created in industries that take advantage of technologies that were originally devoted entirely to defense contracting. The outlook for the defense sector is favorable since defense spending bills currently moving through Congress would finance shipbuilding at local facilities. The Port of Virginia should also see increased levels of activity due to the expansion of the Panama Canal; the first of the larger ships to pass through the canal has already docked at the port. Current improvements to the port will allow it to handle even larger vessels that can now use the expanded canal.

Southwest and West

"This may be a good time to take a hard look at the remaining potential in late-recovery markets such as Phoenix, Tampa, and Las Vegas."

Denver (11). The capital and largest city of Colorado is once again a top market in this year's *Emerging Trends* survey. Denver has seen particularly strong growth in the leisure and hospitality, construction, and professional and business services sectors. Despite strong labor force growth, the city's unemployment rate is now at its lowest rate in 15 years. Due to the tightening labor market, Denver workers are enjoying hourly earnings growth that is outpacing the national average.

Denver has not been able to completely escape the downturn in the energy-related business services sector. With the decline in operating oil rigs in the United States, a number of service firms have reduced administrative staff. The good news is that the worst of these layoffs has likely already occurred and that with the strong demand for labor, most of these workers have already been absorbed back into the workforce.

Professional services are projected to be the growth driver of the Denver economy in 2017. The market has enjoyed the creation and relocation of a number of engineering, computer systems design, and scientific research companies. These firms are drawn to the qualified labor force that, in turn, has come to Denver for the high quality of life.

Salt Lake City (18). Utah's capital and largest city continues to experience good employment and population growth. The health care, finance, technology, and leisure and hospitality sectors have been the leading job creators in the market. The strong job growth is allowing incomes to rise faster than the national average.

Technology has been a key driver of Salt Lake City employment. Technology companies in the aerospace, computer design, and medical device fields have had success in Salt Lake City. Tech industries are attracted to a well-educated workforce

and a lower cost of doing business. If business and living costs continue to rise in Silicon Valley, Salt Lake City may see an increase in tech company relocations.

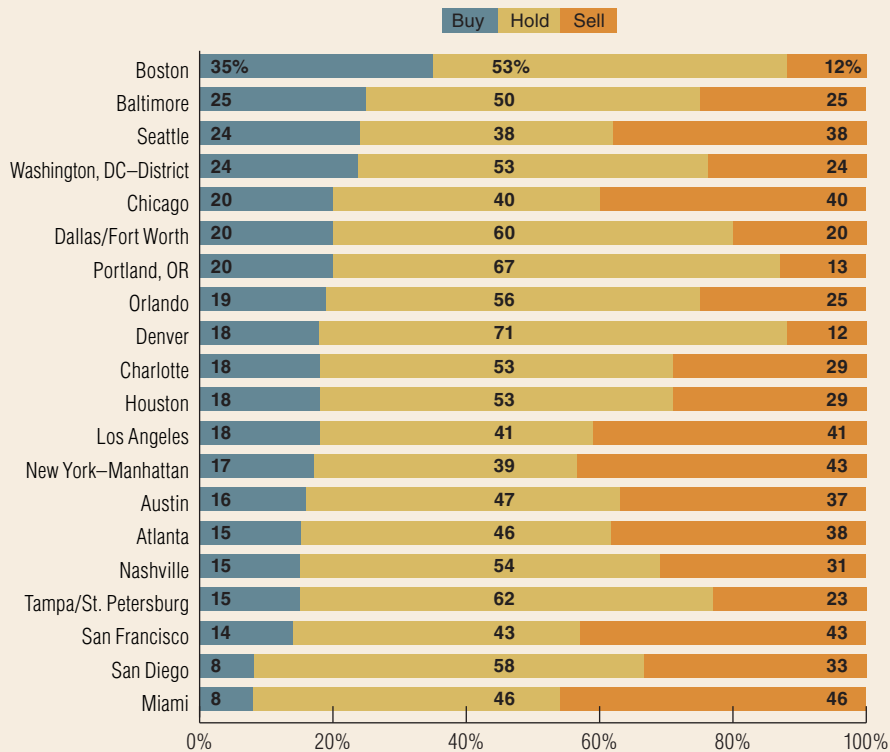
The financial services industry has been growing in Salt Lake City. National financial firms have been moving operations from higher-cost locations. In addition to lower business costs, financial firms have discovered a synergy with the market's tech industry. This collaboration has been a benefit for both technology-driven lenders and traditional firms that are expanding their online offerings.

Phoenix (21). The capital and largest city of Arizona is one of the housing-bust markets that have made a significant recovery since the global financial crisis. The market has recovered all of the jobs lost during the recession and added another 7 percent to total employment. Job growth has been driven by gains in the financial services, education and health care, and tourism sectors.

Office-using professional and financial services firms have contributed significantly to recent growth in Phoenix. The market is again being viewed as a viable low-cost alternative to higher-priced California markets. Relocating firms are taking advantage of not only lower costs, but also a deeper labor pool. An executive from a California-based firm noted: "When we post for a job in Phoenix, we get 12 qualified applicants. The same posting in California might yield one." Financial sector employment should get a boost as the local housing market continues to improve. Home prices have been rising, but are still below those seen in the previous peak.

Boise (46). Idaho's capital and largest city offers an attractive lifestyle along with affordable living and business costs. The proximity to the tech-dominated West Coast markets makes the potential of locating offices in Boise a viable possibility. A ULI focus group participant noted, "The Boise lifestyle is getting notice in the coastal markets. There is caution but increasing interest in companies opening second offices from Seattle, Portland, and San Francisco."

Exhibit 3-8 U.S. Hotel Property Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Cities listed are the top 20 rated for investment in the hotel sector; in this exhibit, cities are ordered according to the percentage of “buy” recommendations.

As in all tertiary markets, the biggest hurdle for Boise is the size of the investable market. A number of projects are under development, so the market will need some time to absorb the new space. If these projects are successful, it is likely to continue to increase interest in the market from companies and investors from outside the local market. One area for potential new development could be affordable housing. The state government and the local government have recognized the need and have been designing incentives that could stimulate more production.

Albuquerque (64). The largest city in New Mexico continues its slow economic recovery, but current employment projections indicate that total jobs could be back to the previous peak in 2017. The Albuquerque economy will be challenged by falling state spending due to the state of New Mexico’s fall

in energy-related tax revenue. The market will also likely need to deal with layoffs at a local computer chip manufacturer as the product produced loses market share to newer technologies. A bright spot in the economy has been an increase in professional services employment. The economy will also get some support from Sandia National Labs and the University of New Mexico.

Las Vegas (61). The economy of Las Vegas is being driven by tourism, construction, and health care services. Tourism has increased as low energy prices have reduced the cost of travel and the improving national economy is putting more money into visitors’ pockets. The growth in construction employment is tied to commercial development since a number of hospitality and retail projects are currently underway in the market. The housing market has stabilized, but prices are still well below the

peak levels of the last cycle. Housing construction is projected to rise in 2017, with permits and starts both showing strong growth. Health care services will continue to add employees as the Las Vegas medical system expands. Health care employment also will be supported as the population ages and Las Vegas remains an attractive destination for retirees.

Tucson (62). The economy of Arizona’s second-largest city is experiencing growth not seen since the recession. The market is seeing job growth in state government, leisure and hospitality services, and professional and business services. The growth in these sectors is offsetting slower growth in manufacturing and reduced levels of new construction. The above-average rate of population growth will increase the need for professional and business services in Tucson. One key risk to Tucson is the exposure to the U.S. defense budget. Defense programs based in the Tucson area could see significant budget allocation reductions in the next several years. Local housing demand should increase with the rise in population and household formation, but the market is still working through an inventory of foreclosures. This inventory will need to be cleared before the housing market can return to more normalized levels.

Northeast

“In a knowledge-based economy, really like to stay in the brain hub markets like Boston.”

Boston (12). The Boston market has consistently remained near the top of the *Emerging Trends* survey. Growing industries such as technology, financial, and health care services are the key job creators in Boston. The growth of these industries has the added benefit of creating a higher percentage of high-wage jobs, which is raising incomes in the market.

The employment growth in the finance sector may slow in the near term as the industry looks to reduce expenses as it deals with increased regulatory expenses and persistent low interest rates. Securities firms, however, may pick up the slack.

These firms are expected to benefit as national wealth levels rise with the improving national economy. Boston is also a natural location for the combination of technology and finance to flourish.

Health care and technology will continue to create jobs in 2017. Health care remains the solid core of the Boston economy. Employment gains at hospitals and physicians' offices have been some of the highest-paying jobs created in the Boston market. The Boston technology industry is concentrated in systems design and software, with less exposure to computer manufacturing. Nearby Cambridge is home to biotech and pharmaceutical industries along with software design firms. These industries will continue to benefit from the collection of top colleges and universities in Boston and Cambridge.

New York–Manhattan (13), New York–Brooklyn (16), New York–other boroughs (44). It might be that 2017 is a year when a number of questions about the New York real estate market will be answered: Will investor interest remain high for New York assets; has the inflow of young workers to the market peaked; and is market demand strong enough to absorb the new supply that will be delivered to the market?

Despite the return of pricing that exceeds the peaks seen in the last cycle, investor demand may actually be on the rise again. Global investors looking for a perceived safe haven are continuing to invest money into Manhattan and Brooklyn. Investment activity could see an uptick since London—another safe-haven market—is now less certain due to the recent vote to leave the European Union.

Employment growth and population growth are both still positive, but the rate of growth is expected to slow in 2017. Anecdotal evidence suggests that the inflow of young workers to the market may be slowing due to the slower job growth and high cost of living. This has been countered by an increase in firms still looking to locate in the market to take advantage of access to these same workers.

Philadelphia (27). Pennsylvania's largest city appears to be riding a wave of optimism going into 2017. ULI focus group participants reported an

increase in nonlocal investors expressing interest in the Philadelphia market. As other East Coast core markets have seen competition drive down yields, it appears that Philadelphia is getting a longer look from more national market participants as a potential investment location.

Philadelphia can be characterized as a lower-cost alternative to other East Coast markets that offers an educated workforce, a diversifying industry base, and a high quality of life. Philadelphia has always had an excellent network of higher education institutions, but it has been a challenge to keep graduates in the market. This trend appears to be reversing since millennials are attracted to the urban lifestyle choices and ultimately the comparative affordability of purchasing a home at some point in the future. Commercial development is adapting to the new requirements in the market, with mixed-use development on the rise. Philadelphia is home to a project that is unique in its ability to blend office, retail, and hospitality within one tower, with each component designed to complement the others.

Pittsburgh (28). The second-largest city in Pennsylvania is an example of a market making a transition. We have noted in past editions of *Emerging Trends* that interest in Pittsburgh is on the rise. Past-year interviewees have commented that they like Pittsburgh and wish there were more investment opportunities there. In 2017, Pittsburgh may well move from investor wish lists to their carts. The ULI focus group all agreed that things look bullish for the city. One participant commented, "When meeting with potential investors, we have moved from the general PowerPoint presentation to a meaningful dialogue."

Pittsburgh is even seeing an increase in foreign investment interest. Foreign investors have been "kicking the tires," and a few have made what might be termed fringe investments.

A number of stories are unfolding in Pittsburgh. The market has the "new" Pittsburgh that is characterized by new tech startups, young workers who want to live in an urban environment, the energy industry, and finally the "old" Pittsburgh represented by an aging population and workforce. The integration of

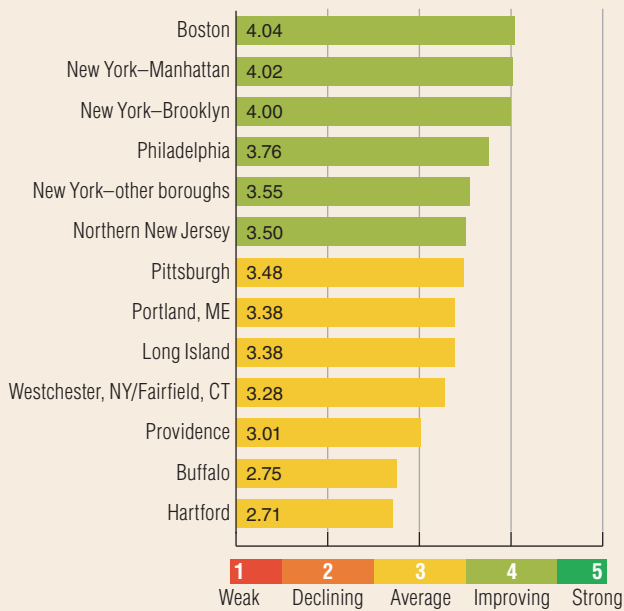
these storylines will shape the opportunities and challenges faced by the city in 2017.

Northern New Jersey (30). The diversity of the northern New Jersey market is seen as offering opportunities in 2017. The market will always be closely linked to performance in the New York metro area, and the industrial market will continue to benefit as an excellent location to serve the goods-delivery needs of the entire New York/New Jersey metro area. Individual communities have the opportunity to offer what one ULI focus group participant labeled as the "metro-burb." These metro-burbs are defined as being close to the train line so they offer access to the urban core of New York, but offer residents the ability to live and play in the same area.

A challenge and opportunity for northern New Jersey is to transform the traditional suburban office reputation into an inventory that can be coordinated with the amenities that today's employers feel they need to attract workers. This could entail converting existing business parks into mixed-use projects, and the market is beginning to see the incorporation of office space into residential developments. Adding office to multifamily gives residents the option of a true coworking space where they live. Capital is available in the market, although it is noted that banks are being selective based on the sponsorship with regard to their history and creativity.

Long Island (39). The Long Island market has been experiencing a slower economic expansion than the rest of the New York metro area. Job growth has been positive but erratic. Health care and education continue to be the key drivers of the economy. The older population base will demand more services, supporting continued growth. Medical services positions are the leading creator of high-paying jobs in the market, so this employment growth is providing a trickle-down benefit to the overall economy. The Long Island housing market continues to struggle with foreclosures since housing prices have still not regained the value lost during the recession. This is hindering the return of the single-family market to more normalized activity. Multifamily housing, however, is seeing some

Exhibit 3-9 Local Outlook: Northeast Region



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Average score of local market participants' opinions on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

pickup as development is targeting transit systems to provide access to New York City.

Westchester, New York/Fairfield, Connecticut (49). Westchester County, New York, and Fairfield, Connecticut, are traditional suburban markets that thrived when companies were leaving urban cores to locate closer to where suburban-dwelling employees had chosen to live. It isn't a surprise, then, that these markets have struggled to increase employment in an environment where companies are moving to urban locations in search of millennial workers. The markets will need to find a way to attract employees while competing with lower-cost locations for back-office activities and thriving urban cores for headquarters. The good news is that both areas are still viewed as attractive places to live. The markets will need to find ways for aging, built-out suburban areas with relatively strict land use regulations and high housing costs to find a way to appeal to a wider population base.

Portland, Maine (73). The Portland, Maine, market is benefiting from the continuing improve-

ment in the national economy. The finance and manufacturing industries have less dependence on global trade, so have been growing along with the United States. Finance employment is on the rise since the base of disability insurers has added employees to meet demand created by national job growth. The area's goods manufacturers also have gotten a boost from rising consumer spending. Professional and business services have also increased employment due to internet retailers expanding call center operations in the market. Portland is overexposed to the defense industry. This sector of the economy has been performing well due to increased funding for operations key to the local economy.

Providence (75). The economy of Providence, Rhode Island, is taking advantage of a number of factors to support employment growth. The market is viewed as a low-cost alternative to Boston and New York that offers a well-educated workforce. The market recently got a boost when a firm relocating to Boston announced plans to move a number of technology jobs to the market. The state of Rhode

Island has also taken steps to keep graduates of Providence-area colleges in the market. Graduates of Rhode Island colleges can take advantage of a tax-credit program to help repay student loans. The Providence housing market has worked through its foreclosure pipeline and is now beginning to show growth as household formations and incomes are on the rise.

Hartford (77). The Hartford, Connecticut, market is a good example of a market where the public and private sectors are at odds. The public sector is expected to shrink as the state cuts jobs to deal with the state budget deficit. Public job growth had been flat, but further cuts are expected to lead to actual declines. The private sector is adding jobs, but they have been concentrated in low-paying industries, which is lowering the market's average weekly earnings. Hartford's dominant insurance industry narrowly avoided being handed a significant tax increase. Industry participants have been hinting at moving to alternatives offering a lower cost of doing if the fiscal climate and business environment do not improve.

Buffalo (78). Buffalo, New York, has recovered all of the jobs lost during the last recession, but the economy has failed to build any positive momentum. Health care employment has been growing, largely due to the older average age of the city's population. Going forward, slow demographic growth will be a headwind to health care employment gains. Buffalo's urban core has struggled recently, with the 2015 population falling by the most in seven years. The city has programs dedicated to revitalization of the urban core, but in the near term, residential and retail growth will likely be confined to relatively small pockets.

Midwest

"While we view the overall Chicago market as stable, we are attracted to how the market is popular with millennials and the movement of companies from the suburbs to the urban core."

“Looking past the top markets, we like to find markets where the growth drivers seem sustainable and are currently looking at markets like Kansas City, Minneapolis, and Charlotte.”

Chicago (19). The largest city in Illinois exemplifies the bifurcation trend we are seeing in the U.S. real estate market, with the urban core performing much differently from the suburbs. The Chicago urban core continues to benefit from corporate headquarters moving all or some of their operations from the suburbs to the urban core. The urban core also remains attractive to tech company growth, which is driving demand for downtown office space. The ensuing employment growth is driving demand for urban multifamily. The industrial market, located primarily in the suburbs, also continues to exhibit improved fundamentals.

The Chicago market may be in a unique position. When one compares the urban cost of locating in Chicago to the urban cost of locating in other gateway markets, Chicago is considered a lower-cost alternative. Costs in Chicago's urban core are not competitive, however, when compared with those of many of the 18-hour city alternatives. The cost disadvantage can make it a challenge for Chicago to attract companies from nongateway markets. In addition, the national perception of crime and the fiscal condition of the state of Illinois create uncertainty and are challenges that must be addressed by the Chicago market.

These challenges aside, the Chicago market offers a level of stability that a number of investors see as a benefit at this point in the national economic cycle. Chicago is still a core market with one of the top regional infrastructure systems in the United States.

Indianapolis (26). In *Emerging Trends in Real Estate® 2016*, interviewees expressed an interest in finding markets that were poised to make a position move. The results of the 2017 *Emerging Trends* survey indicate that Indiana's capital and largest city may well be ready to move up in the rankings of secondary markets. Indianapolis offers a competitive cost of doing business and employees can benefit from a lower cost of living. Similar to some

other markets in the Midwest, private and institutional investors have been pleasantly surprised by the yields they have been able to earn with their Indianapolis investments.

Indianapolis has seen a rise in downtown development that has helped create the type of urban core that could be attractive to millennials and hence to the technology companies that are looking to employ them. In addition, the market has a number of strong suburban markets that have embraced the urban suburban concept. The urban feel of the market could get a boost since the market has already committed to mass transit spending, and will decide later in 2016 if this spending will be increased. The most significant challenge faced by Indianapolis is one faced by many secondary markets, i.e., making national investors aware of the positive attributes of the market.

Minneapolis/St. Paul (38). The Twin Cities market continues to exhibit the strengths associated with the 18-hour city. Residential and entertainment opportunities have expanded in the urban core, making live/work/play a reality. In addition, a number of suburban locations within Minneapolis have also made a concentrated effort at expanding their urban feel and have increased walkability and access to transit to help tie the entire metropolitan area together.

Minneapolis/St. Paul also benefits from an educated workforce and core industries that include medical technology, retail logistics, and information technology. The market also has a number of homegrown Fortune 500 companies that have a history of strong corporate citizenship.

National investors have increased their interest in the Minneapolis/St. Paul market, hoping to earn superior returns to those that can be found on either coast. Despite this increased interest level, the market is dominated by local market participants. A number of nonlocal investors have chosen to work with local market partners to take advantage of their superior market knowledge.

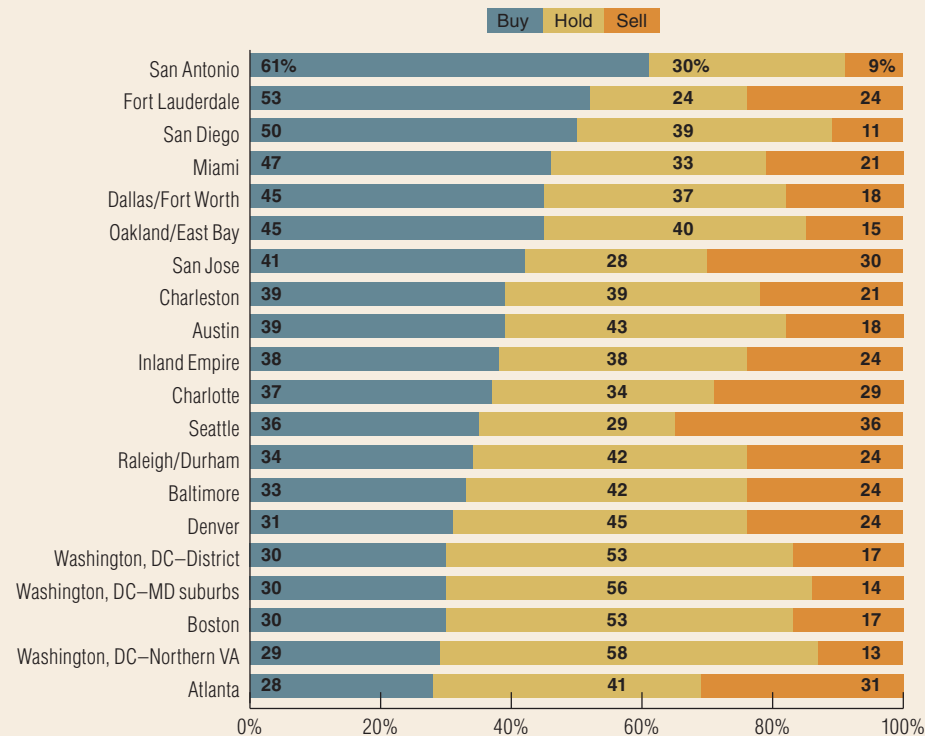
Cincinnati (41). The Cincinnati market has been witnessing growth in both the services and goods-producing sectors. The service sector is attracted to the educated workforce and includes both higher-paying technical services positions and more moderate support jobs. Health care also has been growing in the market and is getting a boost from local hospital expansions. The technology sector in Cincinnati has developed to support core industries. Technology in the market is related to e-commerce, data analytics, and medical device manufacturing. The manufacturing sector has not been adding jobs due to the increased use of automation in the market, but it continues to drive economic activity.

Cincinnati's educated workforce has become a draw to services firms looking for lower-cost places to do business. This should support office employment growth in the coming years. Manufacturing growth could slow in the next year since the strong dollar will hurt global exports and if companies remain cautious in their level of business investment.

Columbus (42). Columbus continues to benefit from good job growth that is driving real estate rent growth. Being the capital of Ohio as well as the home of the state's largest university has helped maintain a stable economic base, and the city's geographic location continues to enhance its position as a distribution hub. The ability to reach a large number of people by truck in a day is an advantage in the era of rising e-commerce sales. Investors have been drawn to the Columbus market and have been rewarded with attractive yields, helping raise the positive perception of the city among national investors.

The presence of the university is also helping the perceived hip factor of Columbus. This desirable factor is also benefiting from a rise in the number of developments that are geared toward walkability. These developments are not concentrated in a single area, but are located in different locations within the metro area. As one ULI focus group participant described the market, “Site selection is more important than ever. You want to be in the A-plus location and avoid anything marginal.” If Columbus can continue to exhibit similar levels of activity

Exhibit 3-10 U.S. Multifamily Property Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Cities listed are the top 20 rated for investment in the multifamily sector; in this exhibit, cities are ordered according to the percentage of "buy" recommendations.

and returns, the market will improve its perception among national real estate players. Columbus could well be considered an 18-hour Midwest city.

Kansas City (48). The Kansas City market is seeing a surge in financial services employment, with that industry growing locally at a rate twice the national average over the past 12 months. The expected reason behind this growth is the lower cost of doing business and access to a well-educated workforce and the location of the Federal Reserve Bank. All industries could have trouble finding qualified workers in 2017 with the Kansas City unemployment rate near 4 percent, the lowest unemployment rate recorded since the late 1990s. It isn't just the expansion of existing firms that is driving job growth. For 2015, Kansas City added 4 percent more private establishments. The tight labor market has already begun to push up incomes,

which is driving consumer spending and housing construction. Housing starts are up in 2016, which will lead to an over 50 percent increase in single-family completions in 2017.

Detroit (50). Michigan's largest city continues to show improvement, but it will still face numerous challenges in 2017. The auto industry has been thriving as consumers with stronger balance sheets have been eating into the pent-up demand left over from the global financial crisis. Recent signs, however, show that auto sales may be peaking. If the auto industry slows, Detroit could get a boost as the market's deep pool of engineering talent transitions to advanced and sustainable manufacturing companies and to fields focused on the integration of technology into the transportation industry.

Pockets of redevelopment and corporate location in the downtown have earned Detroit national attention. The continued success of these developments could spur further investment in the market.

St. Louis (53). A ULI focus group participant dubbed 2017 "the year of filling in," given the redevelopment activity in the central corridor area of St. Louis. The expectation is that the tremendous amount of activity in the Midtown and Central West End neighborhoods could also benefit downtown. The ultimate goal is to improve connectivity in the St. Louis metro area, which could allow the entire market to benefit from activity in individual nodes and neighborhoods.

Affordability and availability are seen as key strengths of the St. Louis market. The market offers a variety of affordable housing options, which makes the city attractive to relocating employees. St. Louis is still a locally dominated real estate market. The slower demographic growth can make it challenging to attract nonlocal investors. Despite the challenge, nonlocal investors do look at the market in search of higher yields compared with those available in more competitive markets. The retail and housing markets in St. Louis are viewed as strong, and the industrial market has good highway access to a large population base. Office activity is more organic, with companies expanding or relocating based on need.

Cleveland (55). The Cleveland market has a number of advantages, including a well-developed distribution network, an infrastructure system designed to handle a larger population base, a growing number of educated workers, and an internationally renowned medical industry. The Health-Tech Corridor market continues to show improvement; a combination of incentives and the desire to be near the educational and medical facilities are driving growth in this area.

Similar to other markets in the Midwest, slower demographic growth means that Cleveland must find a way to grow organically while the search for ways to reverse current demographic trends continues. Debt and equity capital for real estate

investment is available in Cleveland, but it is categorized as “cautious” by the ULI focus group participants. If a capital issue exists in Cleveland, it relates more to venture capital availability for startup companies. This type of capital may be conducive to the creation of new firms that could attract graduates of local universities and begin to reverse the current negative demographic movements. Since new construction in the market has been limited, Cleveland would actually benefit from the downtown development of Class A office space. A number of older properties have been redeveloped for residential uses and the market lacks an existing block of space that could be attractive to a relocating company.

Des Moines (57). The economy of Iowa’s capital is heavily weighted toward white-collar employment, and these sectors have been adding jobs. Professional and business services and financial activities are the leading job creators. Des Moines has a significant mortgage origination industry that has been benefiting from the improvement in the national housing market and refinance activity supported by consistently low mortgage rates.

The Des Moines market is experiencing a mini development boom. Commercial and residential construction payrolls could reach an all-time high over the next 12 months. The majority of the development is housing related, with the majority related to multifamily. Units under construction in Des Moines represent just over 6 percent of total inventory. Commercial construction has also been active since several firms are locating and expanding data centers in the metro area. In addition, a number of retail developments are underway across the market.

Madison (58). Although Madison is typically considered a tertiary market, the presence of Wisconsin’s capital and a renowned public university supports the local real estate market and offers potential regional or national investors with specific strategies to take advantage of these attributes. The university continues to provide the market with well-educated graduates who are supporting the growing high-tech clusters in the market. Total employment in Madison is now 10 percent higher than it was at

the peak of the previous cycle. While 2017 employment growth is expected to be only slightly higher than the U.S. average, the employment base is twice as concentrated as the U.S. in high-tech jobs.

Milwaukee (65). The largest city in Wisconsin has one of the highest concentrations of goods-producing employment in the United States. The Milwaukee manufacturing sector has been hit particularly hard by the collapse in energy prices and the strength of the U.S. dollar. A cutback in U.S. and Canadian oil exploration and extraction has greatly reduced the sale of heavy equipment manufactured in Milwaukee. If global energy production picks up again in 2017, the manufacturing sector could get a boost. Manufacturing could also get a boost if housing construction rises nationally next year. This will increase the market for the component of the manufacturing sector that produces home HVAC equipment. Health care is the largest industry in Milwaukee, but comparatively weak demographic growth and a lower percentage of the population over the age of 65 are hindering future growth in this sector of the economy.

Omaha (70). The largest city in Nebraska joins the list of smaller markets that are seeing professional and business service growth due to companies relocating in search of lower business costs. Along with lower business costs, Omaha offers a population base in which 33 percent of adults have a bachelor’s degree. This is 4 percent higher than the national average. Health care services also will contribute a greater share to future employment growth. The health care industry is getting a boost from the growing and steadily aging population. A number of public and private industry major construction projects are driving construction employment. This is helping offset slower residential construction levels.

Florida

“We like markets with good employment and population fundamentals like you see in markets like Orlando and Tampa. The spread between

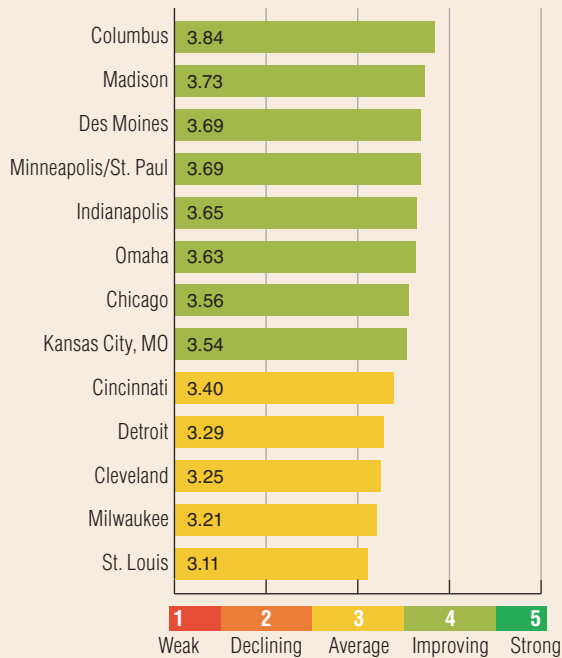
these markets and the gateway markets has some room to compress.”

Tampa Bay/St. Petersburg (20). The Tampa Bay/St. Petersburg market has the advantage of having dual urban cores. The St. Petersburg urban core is particularly attractive to the emerging workforce. The area is viewed as very walkable and includes excellent live/work/play options. Development in the Tampa urban core is still looking for ways to benefit from the riverfront area and take advantage of the opportunity to provide live/work/play options or at least some combination of the three to residents. Tampa Bay/St. Petersburg has many of the components necessary to become an 18-hour market. The goal will be to get each of them moving in a positive direction.

Improved economic performance has the local real estate market in good shape for all property types. Debt and equity capital for projects is available, but capital for office or condo development will likely require significant equity contributions from the borrower. ULI focus group participants feel that the opportunity for Tampa Bay/St. Petersburg will be to improve its perception as a destination market where developers will decide to become long-term owners, rather than build-and-sell participants.

Orlando (22). The economy of the Orlando area has experienced one of the strongest recoveries since the global financial crisis and the pace and level of this recovery have increased national and global interest in the city’s real estate market. The city’s reputation as a global entertainment destination is both a benefit and a challenge to the Orlando market. On the benefit side, the entertainment and tourism side of the market is a tremendous economic driver and has greatly enhanced the city’s visibility to off-shore investors. The challenge comes in educating the rest of the world that there are benefits to the other side of Orlando. ULI focus group participants noted that the city is battling the perception that the market is just theme parks, leading to the “You don’t know the half of it” marketing campaign.

Exhibit 3-11 Local Outlook: Midwest Region



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Average score of local market participants' opinions on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

Florida is growing again, and Orlando is reaping the benefit of this growth. The real estate sectors seeing the growth at this point are population related, with housing, both multifamily and single-family, seeing good demand. Orlando remains a key test market for an expanding number of retailer and food service companies. The industrial market that is primarily geared toward the local economy and population base also has a good outlook for 2017. Medical office also is cited as an opportunity in the Orlando market that could perform well in 2017.

A fact that comes as a surprise to some national market observers is the size of the college student base in the Orlando market. The key to growing the non-entertainment side of the Orlando economy is finding a way to create jobs that will entice this population base to remain in the market after graduation. A focus group participant noted, "Orlando needs to find a way to create jobs that match up better with our graduates."

Southeast Florida: Miami (25), Fort Lauderdale (35), West Palm Beach (43). The southeast Florida markets of Miami, Fort Lauderdale, and West Palm Beach are again enjoying strong population growth. The rise in population is driving employment growth, which has recovered all of the jobs lost during the global financial crisis in each of the metro areas. While employment growth has recovered, the market is comparatively more affordable than it was at the last peak. Despite showing good gains, existing-home prices remain below their cyclical peaks. International capital is again beginning to flow into southeast Florida; this capital movement should get a boost since a number of Latin American countries are enjoying improved economic growth.

The industrial market is enjoying rising demand and, with a limited amount of new supply, is leading to improved fundamentals. High street retail in a select set of emerging neighborhoods is a subsector

that should perform well in southeast Florida in 2017. The housing market will benefit from the increase in population growth, but it is challenged by a shortage of suitable land and rising construction costs. The multifamily sector is now faced with an elevated number of new units under construction. The southeast Florida markets will need to see if demand will remain strong enough to absorb the new units coming to market.

Jacksonville (47). Jacksonville has a number of characteristics in common with other secondary and tertiary markets in this year's survey. These markets tend to offer affordable business and living cost structures, economic and demographic growth that easily exceeds the national average, and steady real estate fundamentals. This creates an active local real estate market, but one that has difficulty getting the attention of national real estate market participants. Jacksonville may have an advantage in reversing this trend due to the popularity of the region as a vacation and second-home market. These visitors and part-time residents have an opportunity to observe the market up close, which could help improve the perception of Jacksonville.

"Neighborhood and niche are the way to look for investments in Jacksonville in 2017." This was the opinion of a ULI focus group participant. Performance in the market is likely to vary significantly by location and the selection of product type. Strong population growth is supporting housing growth, but the difficulty in finding developable lots and enough qualified labor is holding back supply and possibly pushing prices to a level where market affordability could suffer. The plus side is that the multifamily market remains solid.

Cape Coral/Fort Myers/Naples (60). Population growth has returned to the southwest Florida market, and that is driving an improving economy. The all-important housing market has bounced back, with 2017 median housing prices projected to be well above those seen in the previous cycle peak. The improvement in pricing is also driving new housing activity with sales, permits, and new completions all projected to be higher in the coming year. One issue that could hurt growth in

2017 is the shortage of qualified construction labor. The current labor shortage is pushing up the price of new housing and extending the time to completion.

ULI focus group participants feel that population-related property sectors will be the top sectors in 2017. Properties such as assisted living facilities, multifamily rental, storage facilities, and student housing are expected to be top choices for the year.

Gainesville (63). Gainesville is a tertiary market with a significant economic driver. The university is a top employer in the market. In addition, the university is a significant investor in knowledge-based industries, directly launching 17 startup companies and signing 122 license agreements with private companies in the most recent fiscal year. The university also supports a biotech incubator with the goal of creating additional high-paying jobs. Health care also has a significant presence in the Gainesville market. The university-affiliated hospital and the veterans' medical facility are the second- and third-largest employers in the market. The health care sector should continue to expand in 2017, with local hospitals adding capacity.

Tallahassee (66). As the capital of Florida, Tallahassee finds that its fortunes are often tied to the state government. In an era of government austerity, the Tallahassee economy has struggled to return to a level equal to that seen in the previous peak. Still, the market is projected to finally regain all of the jobs lost during the global financial crisis in 2016. In addition to the state government, education and health services are the top job creators in the market. Tallahassee is home to a major university as well as other universities and colleges. The largest hospital in the market is Tallahassee's second-largest employer. Tallahassee is a market dominated by local and regional real estate investors who have found opportunities in multifamily housing and retail.

Deltona/Daytona Beach (76). Population growth is driving economic activity in the Deltona/Daytona Beach market. The projected rate of

population growth in the market is over three times the national average, with a large segment of this new population over the age of 65. More residents and particularly more residents over the age of 65 are driving growth in the health services sector. The health services sector is also the top contributor to the high-wage positions in the market. The pace of population growth also is expected to drive a rise in housing activity in 2017, with permits and starts up significantly from the previous year. Commercial construction also is getting a boost from a number of retail and mixed-use projects under construction in Deltona/Daytona Beach.

Exhibit 3-12 Economy

Market	2017 Population			Millennials (age 16–35)		Business costs					Total employment			Location quotient****				
	Total (millions)	2016–2017 % change	5-year annual net migration (000s)	% of total population	5-year growth	2017 GMP per capita ratio*	GMP per capita 5-year projected growth	Cost of doing business**	Per capita disposable income ratio***	5-year disposable income growth	2016–2017 % change	2017 as % of previous peak	2019 as % of previous peak	High technology	Business & professional services	Education & health services	Energy	Goods producing
United States	327.56	0.8%	—	30%	2.6%	1.00	1.4%	100%	1.0	4.2%	1.5%	106.6%	109.2%	1.0	1.0	1.0	1.0	1.0
Albuquerque	0.91	0.1%	1.38	29%	0.2%	0.88	1.3%	90%	0.8	3.4%	1.8%	99.6%	102.0%	2.1	1.1	1.0	0.1	0.7
Atlanta	5.99	2.2%	102.40	31%	12.3%	0.99	1.9%	88%	0.9	3.2%	1.9%	110.9%	114.5%	1.5	1.3	0.8	0.1	0.8
Austin	2.14	2.9%	42.89	35%	18.0%	1.03	1.7%	98%	1.0	3.5%	2.3%	130.5%	137.0%	2.6	1.2	0.7	0.8	0.9
Baltimore	2.83	0.4%	3.72	30%	3.9%	1.07	1.0%	105%	1.2	4.2%	0.6%	106.6%	108.0%	1.6	1.2	1.2	0.1	0.7
Birmingham	1.15	0.2%	1.05	29%	1.5%	0.89	1.1%	96%	0.9	3.4%	0.8%	98.6%	100.3%	0.9	0.9	0.9	1.1	0.9
Boise	0.71	1.6%	6.34	29%	6.5%	0.83	2.0%	84%	0.8	4.9%	2.2%	111.1%	114.9%	1.6	1.0	1.0	0.2	1.1
Boston	4.84	0.6%	10.37	31%	2.7%	1.16	1.4%	122%	1.4	4.6%	1.2%	109.5%	111.6%	2.6	1.3	1.3	0.0	0.8
Buffalo	1.13	−0.4%	−5.26	29%	−4.7%	1.10	0.1%	86%	0.9	3.8%	0.8%	102.2%	103.3%	1.1	0.9	1.1	0.1	0.9
Charleston	0.77	1.5%	7.52	32%	7.3%	0.81	1.3%	100%	0.9	3.9%	1.8%	114.7%	117.7%	1.1	1.1	0.7	0.1	1.0
Charlotte	2.54	2.2%	50.69	30%	14.8%	1.00	2.1%	98%	0.9	3.2%	1.9%	111.8%	115.7%	1.1	1.2	0.7	0.1	1.1
Chicago	9.59	0.2%	−32.29	31%	1.3%	1.02	0.7%	99%	1.1	4.7%	1.9%	104.9%	107.2%	1.4	1.3	0.7	0.1	0.9
Cincinnati	2.18	0.5%	3.17	29%	1.6%	0.89	1.3%	97%	1.0	4.9%	1.7%	104.7%	107.1%	1.0	1.1	1.0	0.1	1.1
Cleveland	2.05	−0.3%	−7.99	27%	−2.4%	0.91	0.7%	97%	1.1	5.3%	1.6%	100.4%	102.3%	0.9	1.0	1.0	0.2	1.1
Columbia	0.84	1.3%	8.79	32%	2.6%	0.84	1.6%	96%	0.9	4.2%	2.0%	109.1%	112.3%	0.7	0.9	1.3	0.4	0.9
Columbus	2.07	1.1%	9.61	32%	7.3%	0.90	1.6%	95%	1.0	4.8%	2.4%	113.9%	117.4%	1.2	1.2	0.8	0.2	0.8
Dallas/Fort Worth	7.45	2.0%	87.92	32%	12.2%	1.07	1.1%	93%	1.0	4.0%	2.6%	119.7%	125.9%	1.7	1.0	0.9	0.6	0.6
Deltona/Daytona Beach	0.66	2.6%	19.72	24%	9.1%	0.84	2.4%	88%	0.8	4.7%	3.1%	104.6%	109.2%	1.0	0.9	0.5	0.0	0.9
Denver	2.92	1.3%	20.23	32%	10.4%	1.05	1.2%	96%	1.2	4.3%	2.2%	117.5%	121.3%	1.8	1.3	1.2	1.5	0.9
Des Moines	0.64	1.0%	1.39	30%	6.1%	0.97	2.1%	82%	1.1	3.9%	1.5%	110.9%	113.1%	0.9	0.9	0.8	0.1	0.8
Detroit	4.31	0.1%	−8.19	28%	0.3%	0.93	0.4%	96%	1.0	4.9%	1.8%	97.8%	100.2%	1.3	1.5	0.9	0.1	1.1
Fort Lauderdale	1.98	1.8%	29.28	28%	11.6%	0.93	2.0%	102%	0.9	4.8%	2.2%	107.2%	110.8%	1.2	1.2	1.0	0.0	0.7
Gainesville	0.29	1.7%	3.74	40%	−4.7%	0.87	2.2%	101%	0.8	5.5%	2.0%	104.5%	107.6%	0.8	0.7	0.8	0.2	0.5
Greenville	0.90	1.2%	8.87	29%	3.2%	0.78	1.5%	90%	0.8	4.2%	1.9%	109.5%	112.6%	0.9	1.3	1.2	0.2	1.3
Hartford	1.22	0.3%	1.14	29%	−0.1%	1.34	1.0%	101%	1.2	3.6%	1.0%	100.6%	102.1%	1.2	1.0	0.7	0.1	1.0
Honolulu	1.01	0.5%	−0.60	32%	3.1%	0.99	0.7%	119%	1.1	3.7%	0.8%	104.8%	106.5%	0.8	1.0	1.1	0.1	0.6
Houston	6.97	2.0%	70.86	32%	10.6%	1.34	1.3%	101%	1.1	4.1%	0.7%	114.3%	119.8%	0.9	1.1	0.9	6.0	1.3
Indianapolis	2.03	1.0%	9.05	30%	6.6%	0.95	1.6%	88%	1.0	5.2%	2.0%	111.8%	114.6%	1.5	1.1	0.8	0.1	1.0
Inland Empire	4.60	1.0%	10.41	32%	2.3%	1.02	1.2%	95%	0.7	3.4%	2.0%	110.3%	113.4%	0.5	0.8	0.9	0.2	1.0
Inland Northwest	0.72	1.0%	5.06	29%	3.4%	0.24	0.8%	80%	0.8	5.0%	1.5%	104.3%	106.7%	0.9	0.8	1.2	0.6	1.0
Jacksonville	1.51	1.9%	23.26	30%	9.5%	0.87	2.3%	96%	1.0	5.7%	2.7%	109.8%	114.1%	1.1	1.1	0.9	0.1	0.8
Kansas City, MO	2.11	0.5%	−1.46	29%	4.1%	0.85	0.6%	93%	1.0	4.5%	1.9%	107.2%	109.5%	1.6	1.3	0.9	0.2	0.9
Knoxville	0.88	0.7%	6.44	28%	2.2%	0.82	0.8%	89%	0.9	3.7%	2.3%	109.0%	111.8%	1.1	1.2	0.9	0.1	1.0
Las Vegas	2.24	2.6%	46.63	31%	14.4%	0.92	1.8%	95%	0.8	2.8%	2.1%	104.2%	108.4%	0.6	0.9	0.6	0.1	0.6
Long Island	2.87	0.1%	−3.13	33%	4.9%	1.13	0.8%	94%	1.4	3.5%	0.9%	104.7%	106.2%	1.4	0.9	1.2	0.0	0.8
Los Angeles	10.32	0.6%	−3.61	29%	3.6%	1.30	1.0%	107%	1.1	4.6%	1.9%	105.2%	107.8%	1.1	1.0	1.1	0.2	0.8
Louisville	1.29	0.5%	3.20	33%	0.8%	0.82	0.8%	87%	1.0	3.8%	1.9%	110.3%	113.5%	0.8	0.9	0.9	0.2	1.2
Madison	0.65	0.7%	1.07	30%	1.4%	0.91	1.1%	95%	1.1	4.7%	1.6%	110.5%	112.6%	1.9	0.9	0.7	0.2	1.0
Memphis	1.36	0.6%	2.25	30%	10.4%	0.88	0.8%	86%	0.9	4.3%	2.5%	102.2%	105.7%	0.8	1.1	0.9	0.0	0.8

Exhibit 3-12 Economy

Market	2017 population			Millennials (age 16–35)		Business costs					Total employment			Location quotient****				
	Total (millions)	2016–2017 % change	5-year annual net migration (000s)	% of total population	5-year growth	2017 GMP per capita ratio*	GMP per capita 5-year projected growth	Cost of doing business**	Per capita disposable income ratio***	5-year disposable income growth	2016–2017 % change	2017 as % of previous peak	2019 as % of previous peak	High technology	Business & professional services	Education & health services	Energy	Goods producing
United States	327.56	0.8%	—	30%	2.6%	1.00	1.4%	100%	1.0	4.2%	1.5%	106.6%	109.2%	1.0	1.0	1.0	1.0	1.0
Miami	2.78	1.4%	29.01	29%	−0.8%	0.94	1.7%	112%	0.9	4.8%	2.5%	110.4%	114.3%	0.7	1.0	1.0	0.1	0.6
Milwaukee	1.58	0.2%	−2.68	30%	6.8%	0.87	1.0%	98%	1.1	4.4%	1.7%	102.2%	104.5%	1.1	1.0	1.2	0.1	1.3
Minneapolis/St. Paul	3.62	1.1%	16.51	31%	8.0%	0.97	1.8%	103%	1.1	3.0%	1.4%	108.2%	110.8%	1.8	1.1	1.1	0.1	1.0
Nashville	1.89	1.4%	14.86	30%	3.7%	0.89	0.9%	94%	1.1	4.2%	2.2%	120.3%	123.8%	0.9	1.2	1.0	0.2	1.0
New Orleans	1.28	0.7%	3.03	35%	10.6%	1.07	1.7%	89%	1.0	5.5%	−2.0%	88.7%	89.5%	0.5	0.9	1.0	2.2	0.9
New York–Brooklyn	2.68	0.7%	−8.88	34%	2.5%	1.11	0.9%	165%	1.0	3.0%	0.9%	126.2%	129.0%	0.7	0.6	2.3	0.0	0.6
New York–Manhattan	1.66	0.4%	−3.00	39%	8.6%	1.61	0.6%	170%	1.6	3.3%	0.7%	110.1%	111.7%	1.5	1.6	0.8	0.0	0.2
New York–other boroughs	4.33	0.5%	−13.27	32%	5.0%	1.23	1.2%	112%	1.0	2.8%	0.8%	116.7%	118.9%	0.6	0.6	2.0	0.0	0.8
Northern New Jersey	7.20	0.2%	−12.10	28%	2.3%	1.27	1.4%	107%	1.4	4.3%	0.5%	99.0%	100.0%	2.0	1.3	1.0	0.1	0.7
Oakland	2.84	1.0%	13.63	31%	10.1%	1.27	1.5%	108%	1.3	4.3%	2.3%	108.6%	111.8%	2.2	1.2	1.1	0.2	1.0
Oklahoma City	1.39	0.9%	3.91	32%	3.1%	0.90	1.7%	86%	1.0	4.1%	1.5%	111.1%	113.8%	0.7	0.9	1.0	5.0	1.0
Omaha	0.93	0.9%	1.52	30%	3.6%	0.88	1.7%	92%	1.0	3.3%	1.8%	108.2%	110.9%	1.2	1.1	1.0	0.1	0.9
Orange County, CA	3.24	0.8%	7.77	31%	5.8%	1.35	1.3%	93%	1.2	4.0%	1.6%	105.8%	108.5%	1.9	1.3	0.8	0.1	1.2
Orlando	2.56	3.2%	70.22	32%	16.4%	0.91	2.6%	100%	0.8	5.2%	3.5%	116.1%	122.8%	1.1	1.2	0.8	0.1	0.7
Philadelphia	6.10	0.2%	−4.55	30%	0.4%	1.04	0.8%	104%	1.2	4.9%	1.9%	104.8%	107.1%	1.5	1.2	1.4	0.1	0.8
Phoenix	4.83	2.3%	83.63	30%	10.0%	0.91	1.6%	96%	0.9	3.6%	3.3%	106.9%	111.9%	1.4	1.2	1.0	0.3	0.9
Pittsburgh	2.35	0.0%	3.50	27%	−0.1%	1.02	1.2%	96%	1.1	5.1%	1.6%	103.0%	105.1%	1.3	1.1	1.3	1.7	0.9
Portland, ME	0.53	0.3%	0.93	26%	1.0%	0.76	0.4%	109%	1.0	3.2%	1.4%	103.1%	105.2%	1.0	0.9	1.3	0.2	0.9
Portland, OR	2.45	1.1%	16.31	31%	10.5%	1.29	2.6%	96%	1.0	5.6%	1.7%	110.8%	114.5%	2.0	1.1	0.9	0.2	1.2
Providence	1.62	0.2%	−0.01	29%	−0.9%	0.93	1.0%	106%	1.0	3.2%	0.9%	100.3%	101.9%	1.2	0.9	1.4	0.1	1.0
Raleigh/Durham	2.61	2.5%	57.44	30%	14.6%	2.88	1.0%	87%	1.0	2.6%	4.1%	112.3%	119.6%	0.6	1.2	1.0	0.1	0.9
Richmond	1.30	0.8%	5.10	30%	4.1%	0.94	0.8%	94%	1.0	3.6%	2.2%	111.2%	114.5%	0.9	1.2	0.9	0.3	0.7
Sacramento	2.34	1.1%	14.12	30%	5.4%	1.17	1.7%	103%	0.8	3.1%	2.0%	103.6%	106.6%	1.2	0.9	1.0	0.1	0.7
St. Louis	3.01	1.2%	−2.12	29%	1.0%	0.95	1.7%	93%	1.1	4.9%	2.0%	103.9%	106.1%	1.2	1.1	1.1	0.2	0.9
Salt Lake City	1.20	1.2%	2.25	33%	5.1%	0.93	1.1%	88%	1.0	4.9%	2.6%	116.1%	119.7%	2.1	1.3	0.8	0.8	1.0
San Antonio	2.48	1.7%	24.12	32%	5.8%	1.31	1.4%	120%	0.9	3.3%	1.9%	119.5%	124.4%	1.0	0.9	1.0	1.2	0.8
San Diego	3.38	1.0%	9.86	34%	5.5%	1.46	0.7%	124%	1.1	4.3%	2.0%	109.7%	112.8%	2.3	1.2	0.9	0.1	0.9
San Francisco	1.67	0.9%	7.59	34%	15.1%	1.43	0.9%	123%	2.0	6.3%	1.7%	121.1%	125.3%	4.2	1.8	0.8	0.0	0.5
San Jose	2.02	1.0%	5.38	31%	11.6%	1.29	1.4%	103%	1.7	5.1%	2.3%	119.4%	123.0%	7.3	1.6	0.9	0.1	1.4
Seattle	2.99	1.4%	20.99	32%	13.9%	0.96	1.3%	83%	1.4	5.2%	1.8%	112.8%	115.8%	2.8	1.1	0.8	0.1	1.2
Southwest Florida	1.15	3.6%	43.94	22%	16.8%	2.45	4.4%	99%	1.2	5.4%	4.1%	112.3%	119.6%	0.6	0.9	0.8	0.3	1.0
Tacoma	0.87	1.2%	5.26	32%	7.7%	0.99	1.5%	90%	1.0	5.4%	1.7%	108.3%	111.1%	0.5	0.7	1.1	0.2	0.9
Tallahassee	0.39	1.2%	3.65	37%	−4.4%	0.83	2.1%	103%	0.8	5.6%	2.2%	102.2%	105.3%	1.0	0.8	0.8	0.2	0.4
Tampa/St. Petersburg	3.10	1.8%	54.96	27%	9.4%	0.93	2.0%	99%	0.9	5.5%	2.5%	107.8%	111.8%	1.5	1.3	1.0	0.1	0.8
Tucson	1.05	1.4%	12.78	29%	−0.4%	0.92	1.1%	93%	0.8	3.7%	3.4%	103.4%	107.5%	1.2	1.0	1.1	1.2	0.8
Virginia Beach/Norfolk	1.75	0.6%	2.46	33%	1.0%	1.06	1.0%	94%	1.0	3.9%	1.4%	100.7%	103.0%	0.9	1.0	0.9	0.1	0.8
Washington, DC—District	0.69	0.9%	0.91	43%	13.9%	1.23	1.2%	121%	1.4	2.8%	0.8%	112.7%	114.4%	1.7	1.5	1.1	0.0	0.1
Washington, DC—suburban MD	2.34	1.1%	11.33	30%	9.0%	4.01	1.4%	100%	1.3	3.2%	0.5%	102.9%	104.7%	2.2	1.3	0.8	0.0	0.7
Washington, DC—suburban VA	3.01	1.2%	7.93	31%	10.0%	1.72	2.0%	121%	1.4	4.1%	2.2%	110.8%	114.4%	3.6	2.0	0.7	0.1	0.5
West Palm Beach	1.51	2.7%	42.56	25%	13.3%	0.94	2.2%	98%	1.5	6.1%	3.3%	109.3%	114.6%	1.1	1.3	1.0	0.0	0.6
Westchester, NY—Fairfield, CT	1.94	0.2%	−3.02	27%	1.0%	0.79	0.2%	117%	2.0	3.9%	0.8%	102.1%	103.6%	1.4	1.1	1.2	0.0	0.7

Exhibit 3-13 Housing

Market	Households		Median home prices				2017 single-family home year-to-year change					Multifamily metrics		
	2017 total (000s)	3-year projected growth	2017 price	2016–2017 % change	2017 as % of peak	Affordability index*	Permits	Starts	Completions	Sales	Walk Score	Rent/cost of ownership**	Rent as % of household income	Space under construction as % of inventory
United States	126,360	3.5%	\$243,425	4.2%	108%	160.1	40.7%	37.6%	31.1%	13.5%	53	0.8	25.3%	3.3%
Albuquerque	362	2.0%	\$194,136	3.8%	97%	174.5	47.2%	45.3%	19.6%	16.7%	42	0.6	18.3%	0.5%
Atlanta	2,222	8.2%	\$190,937	4.3%	108%	199.6	8.5%	8.8%	14.7%	15.1%	48	1.1	25.1%	3.5%
Austin	812	9.0%	\$286,556	2.3%	151%	150.4	11.5%	11.4%	13.2%	11.2%	39	0.7	23.6%	4.9%
Baltimore	1,099	3.1%	\$267,701	5.1%	92%	186.9	39.7%	31.0%	2.8%	13.8%	69	0.8	21.1%	2.2%
Birmingham	466	2.5%	\$192,400	2.3%	115%	161.5	12.5%	14.6%	21.4%	10.2%	35	0.7	20.8%	2.3%
Boise	272	6.3%	\$209,530	4.1%	99%	165.4	20.7%	21.8%	34.6%	11.9%	39	0.6	15.4%	4.7%
Boston	1,896	3.3%	\$425,940	4.4%	103%	137.3	38.2%	29.7%	4.0%	13.5%	81	0.9	35.7%	4.0%
Buffalo	473	0.4%	\$137,630	2.3%	128%	274.5	52.7%	45.4%	8.8%	12.2%	67	1.1	21.7%	2.8%
Charleston	307	6.2%	\$261,833	3.8%	118%	145.9	9.7%	9.1%	11.8%	4.5%	39	0.9	28.5%	8.2%
Charlotte	1,000	8.6%	\$211,782	3.2%	125%	180.2	19.9%	18.5%	10.6%	14.5%	26	0.9	25.1%	5.8%
Chicago	3,614	1.7%	\$244,324	4.3%	86%	175.4	34.1%	28.4%	24.4%	13.6%	78	1.0	28.0%	2.0%
Cincinnati	875	3.0%	\$158,808	4.1%	109%	260.0	23.5%	23.3%	31.0%	13.8%	50	0.9	17.2%	1.8%
Cleveland	866	0.9%	\$136,463	4.6%	97%	274.0	37.2%	35.6%	40.3%	12.7%	59	1.0	19.1%	1.2%
Columbia	337	5.9%	\$173,953	4.7%	117%	208.4	22.2%	20.7%	15.6%	2.9%	36	0.8	19.2%	2.9%
Columbus	831	4.6%	\$184,041	3.8%	121%	224.9	51.9%	49.4%	57.9%	14.5%	40	0.8	18.2%	2.9%
Dallas/Fort Worth	1,810	7.6%	\$241,968	3.5%	147%	158.3	9.8%	9.2%	7.8%	11.8%	45	0.8	24.0%	4.7%
Deltona/Daytona Beach	283	10.1%	\$185,738	7.6%	87%	165.9	92.1%	87.5%	58.1%	13.3%	36	1.1	31.0%	2.5%
Denver	1,191	6.4%	\$403,112	4.4%	160%	113.6	26.5%	24.7%	14.7%	13.6%	60	0.6	23.8%	6.2%
Des Moines	253	4.8%	\$188,962	2.3%	120%	235.8	16.2%	9.8%	7.3%	13.7%	44	0.8	16.5%	6.1%
Detroit	1,748	1.8%	\$113,507	7.6%	68%	341.8	32.5%	27.1%	24.7%	16.9%	55	1.5	20.1%	1.5%
Fort Lauderdale	818	7.3%	\$309,448	4.7%	81%	116.8	164.2%	166.8%	131.5%	12.3%	58	0.8	31.7%	4.3%
Gainesville	119	6.7%	\$202,813	6.0%	90%	181.0	72.4%	67.4%	32.2%	12.6%	34	0.7	19.3%	6.0%
Greenville	373	5.5%	\$191,744	4.6%	120%	164.3	23.8%	23.0%	21.0%	5.4%	42	0.9	25.9%	5.4%
Hartford	488	1.9%	\$240,345	4.0%	91%	215.7	21.0%	17.8%	8.3%	18.5%	71	0.8	19.0%	1.6%
Honolulu	336	3.0%	\$772,966	3.9%	118%	60.7	42.6%	43.3%	34.1%	11.7%	63	0.4	30.8%	2.7%
Houston	2,455	7.4%	\$225,128	2.8%	145%	169.7	1.8%	0.0%	−4.7%	13.1%	48	0.9	26.4%	5.0%
Indianapolis	806	4.1%	\$163,745	3.1%	132%	237.7	26.2%	27.5%	42.1%	9.1%	29	0.9	18.4%	2.6%
Inland Empire	1,472	6.3%	\$316,492	3.8%	78%	111.4	47.1%	46.8%	31.7%	12.9%	41	0.7	28.9%	1.2%
Inland Northwest	291	4.8%	\$230,990	3.3%	116%	168.9	34.5%	28.1%	10.1%	10.9%	48	0.6	16.5%	2.3%
Jacksonville	594	7.6%	\$225,470	6.7%	115%	157.8	34.5%	31.5%	20.1%	13.2%	26	0.8	22.1%	1.2%
Kansas City, MO	849	2.8%	\$188,979	4.3%	120%	216.3	28.0%	28.9%	56.9%	13.7%	34	0.7	17.1%	3.1%
Knoxville	369	3.6%	\$172,307	0.0%	0%	197.3	15.4%	11.7%	−2.1%	13.0%	31	0.8	20.2%	3.1%
Las Vegas	845	8.8%	\$238,640	3.9%	74%	142.2	69.7%	69.0%	54.5%	9.3%	40	0.7	23.2%	1.6%
Long Island	965	1.9%	\$442,831	1.8%	92%	139.5	73.1%	67.0%	18.1%	12.3%	95	0.8	26.2%	5.4%
Los Angeles	3,453	3.0%	\$528,612	6.2%	88%	69.8	27.8%	27.8%	24.0%	14.1%	66	0.7	42.2%	2.5%
Louisville	536	3.1%	\$163,645	3.1%	118%	213.9	54.3%	46.2%	20.8%	11.9%	33	0.9	19.8%	3.8%
Madison	278	3.8%	\$266,352	4.8%	117%	166.1	32.4%	24.7%	16.8%	14.2%	48	0.5	15.7%	2.9%
Memphis	529	3.3%	\$156,725	4.4%	107%	205.0	52.6%	41.5%	−3.2%	12.6%	36	0.9	21.6%	1.3%
Miami	991	5.9%	\$317,136	6.4%	81%	92.9	88.8%	82.1%	47.1%	12.2%	78	1.1	53.1%	6.0%
Milwaukee	653	2.4%	\$237,514	4.5%	106%	166.8	42.0%	41.0%	32.3%	14.2%	61	0.6	18.0%	3.6%

Exhibit 3-13 Housing

Market	Households		Median home prices				2017 single-family home year-to-year change					Multifamily metrics		
	2017 total (000s)	3-year projected growth	2017 price	2016–2017 % change	2017 as % of peak	Affordability index*	Permits	Starts	Completions	Sales	Walk Score	Rent/cost of ownership**	Rent as % of household income	Space under construction as % of inventory
United States	126,360	3.5%	\$243,425	4.2%	108%	160.1	40.7%	37.6%	31.1%	13.5%	53	0.8	25.3%	3.3%
Minneapolis/St. Paul	1,466	5.2%	\$254,558	5.0%	105%	188.3	35.0%	28.0%	25.1%	16.6%	68	0.8	20.9%	2.5%
Nashville	747	5.2%	\$225,360	3.1%	122%	164.7	8.7%	5.8%	–0.6%	11.4%	28	1.0	28.9%	8.3%
New Orleans	506	3.5%	\$187,957	4.3%	104%	184.1	29.2%	30.0%	29.1%	9.8%	57	1.2	31.8%	3.2%
New York–Brooklyn	972	3.3%	\$449,730	3.7%	98%	69.2	28.1%	24.9%	14.2%	12.9%	97	0.9	55.9%	5.9%
New York–Manhattan	792	2.0%	\$1,347,507	4.2%	97%	36.5	27.5%	24.4%	14.2%	12.6%	89	0.4	48.1%	2.6%
New York–other boroughs	1,499	3.0%	\$520,038	4.0%	114%	152.7	27.7%	24.5%	14.2%	12.5%	78	0.7	40.5%	3.4%
Northern New Jersey	2,663	2.1%	\$441,451	3.4%	102%	150.6	38.0%	40.4%	23.6%	14.0%	80	0.7	25.1%	2.5%
Oakland	1,016	3.3%	\$859,620	5.0%	104%	65.2	16.6%	16.7%	23.4%	11.7%	72	0.5	33.8%	1.8%
Oklahoma City	543	4.1%	\$144,991	1.9%	105%	248.2	33.6%	33.0%	21.2%	13.1%	32	0.9	16.1%	1.5%
Omaha	367	4.1%	\$170,472	2.6%	121%	229.6	34.7%	32.1%	33.5%	11.3%	45	0.8	16.4%	2.7%
Orange County, CA	1,082	3.6%	\$764,719	3.9%	106%	65.5	12.5%	11.5%	7.7%	11.4%	53	0.4	30.9%	3.7%
Orlando	1,014	12.2%	\$227,190	5.7%	82%	142.7	61.8%	57.1%	32.1%	14.4%	41	0.9	27.4%	2.9%
Philadelphia	2,353	1.9%	\$232,047	4.1%	98%	203.1	52.9%	51.9%	26.0%	16.3%	78	0.9	23.0%	1.7%
Phoenix	1,878	9.7%	\$239,835	4.2%	88%	150.7	39.6%	37.6%	25.3%	11.2%	40	0.7	23.0%	3.1%
Pittsburgh	1,011	–0.2%	\$155,420	3.8%	128%	265.4	37.6%	36.0%	13.4%	15.2%	61	1.0	20.1%	2.2%
Portland, ME	226	2.0%	\$258,715	4.9%	104%	165.0	28.0%	18.7%	–1.4%	10.5%	60	0.9	27.3%	3.2%
Portland, OR	1,013	5.7%	\$369,207	6.6%	125%	112.8	30.8%	31.7%	27.4%	13.9%	64	0.6	25.6%	3.0%
Providence	646	1.3%	\$276,769	4.8%	93%	145.4	50.3%	45.8%	31.0%	12.3%	78	0.8	26.4%	2.8%
Raleigh/Durham	1,039	9.0%	\$309,457	7.0%	166%	176.8	32.8%	29.1%	13.7%	13.3%	27	0.7	21.5%	4.2%
Richmond	515	4.0%	\$239,300	4.2%	101%	182.1	35.4%	34.1%	22.1%	16.3%	52	0.7	19.4%	2.2%
Sacramento	865	4.6%	\$332,759	7.2%	87%	131.5	27.1%	25.2%	11.3%	12.0%	46	0.6	22.8%	0.9%
St. Louis	1,154	2.1%	\$167,300	3.9%	110%	247.7	32.5%	34.9%	58.6%	14.0%	64	0.8	17.1%	1.9%
Salt Lake City	407	5.0%	\$283,073	4.5%	118%	148.6	43.8%	43.3%	44.3%	12.7%	56	0.5	16.4%	6.1%
San Antonio	893	6.7%	\$211,213	2.9%	136%	159.2	20.9%	18.5%	7.2%	11.7%	36	0.8	22.5%	5.1%
San Diego	1,201	4.1%	\$608,316	5.4%	98%	75.8	40.1%	43.2%	24.3%	12.2%	50	0.5	31.3%	1.9%
San Francisco	636	3.1%	\$1,275,347	6.0%	129%	53.3	42.0%	36.6%	5.8%	11.6%	86	0.5	44.1%	4.5%
San Jose	678	3.0%	\$1,089,823	6.7%	127%	60.2	29.0%	26.4%	14.2%	11.2%	50	0.4	29.8%	4.0%
Seattle	1,219	5.7%	\$479,158	6.3%	113%	116.0	21.4%	22.5%	26.5%	10.8%	73	0.6	24.3%	4.9%
Southwest Florida	507	14.1%	\$412,306	3.6%	114%	118.6	59.5%	54.1%	28.7%	14.3%	24	1.0	39.4%	3.5%
Tacoma	336	5.4%	\$262,866	6.3%	97%	163.0	32.2%	32.7%	25.9%	12.3%	53	0.9	24.5%	0.6%
Tallahassee	155	5.5%	\$195,245	6.7%	107%	194.2	104.6%	103.6%	66.4%	11.8%	32	0.7	20.5%	0.5%
Tampa/St. Petersburg	1,320	7.1%	\$211,333	7.9%	92%	157.7	46.8%	42.1%	22.7%	12.6%	49	0.9	27.4%	3.3%
Tucson	447	7.6%	\$199,136	5.3%	79%	162.5	50.3%	48.9%	33.5%	11.6%	41	0.6	18.1%	0.4%
Virginia Beach/Norfolk	679	3.7%	\$222,195	3.5%	90%	179.3	34.0%	32.3%	17.3%	14.7%	33	0.7	19.2%	1.8%
Washington, DC–District	299	3.4%	\$366,372	–1.1%	95%	137.0	–27.1%	–20.6%	23.0%	10.9%	77	0.9	36.2%	6.3%
Washington, DC–suburban MD	868	5.3%	\$208,342	4.9%	48%	130.7	46.6%	39.9%	23.0%	15.1%	47	0.6	21.3%	3.2%
Washington, DC–suburban VA	1,139	5.2%	\$412,408	4.0%	89%	135.0	56.6%	51.0%	23.0%	17.3%	68	0.6	18.1%	3.8%
West Palm Beach	657	10.8%	\$336,603	6.2%	80%	115.5	152.4%	146.6%	80.2%	13.6%	41	0.8	31.9%	5.5%
Westchester, NY/ Fairfield, CT	707	2.0%	\$437,439	4.0%	76%	121.8	17.9%	11.3%	14.2%	16.0%	53	0.6	25.2%	3.5%

Exhibit 3-14 Local Market Perspective*: Investor Demand

Weak	Declining	Average	Improving	Strong
Seattle	4.57	San Antonio	3.62	
New York—Manhattan	4.56	Minneapolis/St. Paul	3.61	
San Francisco	4.53	Indianapolis	3.61	
Boston	4.53	Boise	3.60	
Austin	4.44	Honolulu	3.57	
Los Angeles	4.34	Washington, DC—MD suburbs	3.57	
San Jose	4.33	Kansas City, MO	3.50	
New York—Brooklyn	4.30	Pittsburgh	3.47	
Denver	4.30	Sacramento	3.47	
Dallas/Fort Worth	4.29	Long Island	3.46	
Portland, OR	4.26	Louisville	3.44	
Oakland/East Bay	4.26	Omaha	3.40	
Orange County	4.26	Las Vegas	3.38	
Charleston	4.22	Westchester, NY/Fairfield, CT	3.32	
Nashville	4.21	Oklahoma City	3.23	
Washington, DC—District	4.21	New Orleans	3.22	
Miami	4.17	Cincinnati	3.22	
San Diego	4.12	Knoxville	3.20	
Charlotte	4.09	Portland, ME	3.20	
Raleigh/Durham	4.09	Spokane, WA/Coeur d'Alene, ID	3.20	
Atlanta	3.94	Jacksonville	3.18	
Palm Beach	3.90	Detroit	3.17	
Greenville	3.89	Baltimore	3.10	
Madison	3.89	Tucson	3.08	
Fort Lauderdale	3.88	Richmond	3.07	
Philadelphia	3.87	Milwaukee	3.00	
Orlando	3.87	Tallahassee	3.00	
Chicago	3.86	Virginia Beach/Norfolk	3.00	
Salt Lake City	3.86	Albuquerque	2.91	
Washington, DC—Northern VA	3.79	St. Louis	2.87	
Tampa/St. Petersburg	3.77	Cleveland	2.86	
Columbus	3.77	Deltona/Daytona Beach	2.83	
New York—other boroughs	3.75	Birmingham	2.75	
Cape Coral/Fort Myers/Naples	3.71	Providence	2.73	
Phoenix	3.69	Gainesville	2.60	
Inland Empire	3.69	Memphis	2.60	
Tacoma	3.67	Houston	2.58	
Northern New Jersey	3.65	Hartford	2.47	
Des Moines	3.63	Buffalo	2.33	

Source: *Emerging Trends in Real Estate 2017* survey.
 *Ratings reflect perspective of local market participants.

Exhibit 3-15 Local Market Perspective*: Development/Redevelopment Opportunities

Weak	Declining	Average	Improving	Strong
Boise	4.00	New York—Manhattan	3.46	
Detroit	3.91	Cleveland	3.46	
Oakland/East Bay	3.85	Cincinnati	3.45	
Dallas/Fort Worth	3.84	Miami	3.44	
Nashville	3.83	Cape Coral/Fort Myers/Naples	3.43	
Portland, ME	3.80	San Francisco	3.41	
Greenville	3.78	Pittsburgh	3.41	
Charlotte	3.75	Omaha	3.40	
Madison	3.75	Inland Empire	3.40	
San Antonio	3.74	Northern New Jersey	3.39	
Salt Lake City	3.73	Sacramento	3.38	
Philadelphia	3.73	Albuquerque	3.33	
Charleston	3.72	St. Louis	3.33	
Portland, OR	3.70	Tacoma	3.33	
Las Vegas	3.68	San Jose	3.32	
Austin	3.67	Kansas City, MO	3.29	
New York—Brooklyn	3.67	Washington, DC—MD suburbs	3.28	
Orlando	3.65	Baltimore	3.28	
Columbus	3.65	Oklahoma City	3.23	
Raleigh/Durham	3.65	Long Island	3.20	
Orange County	3.65	Louisville	3.19	
Seattle	3.64	Providence	3.18	
Denver	3.64	Milwaukee	3.15	
Tampa/St. Petersburg	3.64	Richmond	3.15	
Los Angeles	3.63	Jacksonville	3.14	
Atlanta	3.61	Virginia Beach/Norfolk	3.14	
Fort Lauderdale	3.60	Tallahassee	3.13	
Washington, DC—Northern VA	3.58	Spokane, WA/Coeur d'Alene, ID	3.10	
Palm Beach	3.58	Westchester, NY/Fairfield, CT	3.08	
Des Moines	3.57	Memphis	3.07	
Minneapolis/St. Paul	3.56	Birmingham	3.00	
New York—other boroughs	3.56	Knoxville	3.00	
San Diego	3.54	Deltona/Daytona Beach	3.00	
Washington, DC—District	3.51	Tucson	2.92	
Indianapolis	3.51	Honolulu	2.83	
Boston	3.51	Hartford	2.79	
Buffalo	3.50	New Orleans	2.78	
Chicago	3.48	Gainesville	2.60	
Phoenix	3.47	Houston	2.53	

Source: *Emerging Trends in Real Estate 2017* survey.
 *Ratings reflect perspective of local market participants.

Exhibit 3-16 South and Mid-Atlantic: Sector and Local Outlook Scores

Overall rank		Investment prospect scores, by sector						Local outlook score*
		Office	Retail	Industrial	Multifamily	Hotel	Housing	
1	Austin	3.57	3.84	3.90	3.50	3.60	3.82	4.10
2	Dallas/Fort Worth	3.62	3.79	3.90	4.00	3.53	3.95	4.12
6	Nashville	3.77	3.78	3.63	3.69	3.47	4.00	4.07
7	Raleigh/Durham	3.68	3.63	3.75	3.55	3.41	4.36	3.91
9	Charlotte	3.66	3.64	3.71	3.67	3.32	3.83	3.97
15	Atlanta	3.62	3.56	3.66	3.86	3.30	3.76	3.80
20	Tampa/St. Petersburg	3.48	3.44	3.67	3.41	3.36	3.93	3.70
22	Orlando	3.02	3.31	3.62	3.81	3.50	3.80	3.79
24	Washington, DC—District	3.31	3.87	3.62	3.21	3.59	4.00	3.82
25	Miami	3.59	3.90	3.68	4.13	3.21	2.57	3.81
29	Washington, DC—Northern VA	3.06	3.70	3.53	3.22	3.18	3.89	3.72
31	Charleston	3.20	3.40	3.19	3.70	3.31	4.30	4.01
32	San Antonio	3.01	3.27	3.56	3.43	3.25	3.72	3.72
33	Washington, DC—MD suburbs	2.78	3.55	3.57	3.18	3.42	3.82	3.49
35	Fort Lauderdale	2.71	3.59	3.83	3.42	3.45	2.05	3.71
37	Greenville	3.11	2.81	3.18	3.23	3.12	1.76	3.93
40	Houston	2.48	3.20	2.98	3.39	3.00	3.16	2.69
43	Palm Beach	2.33	2.61	2.90	2.66	2.38	2.57	3.82
47	Jacksonville	2.43	2.38	2.85	2.27	2.55	3.26	3.19
51	Louisville	2.25	2.25	2.70	2.50	2.63	2.63	3.38
54	Oklahoma City	2.02	2.45	2.48	2.57	2.45	2.80	3.40
56	Knoxville	2.13	2.50	2.68	2.55	2.00	3.00	3.15
59	New Orleans	1.87	2.13	2.67	2.40	3.04	2.00	3.03
60	Cape Coral/Fort Myers/Naples	2.10	2.36	2.70	1.75	2.28	2.45	3.62
63	Gainesville	1.50	2.44	2.63	2.25	1.88	1.88	2.90
66	Tallahassee	2.06	2.25	2.57	2.25	2.50	2.00	3.02
67	Memphis	2.44	2.50	2.17	2.63	2.00	3.00	2.81
68	Birmingham	1.94	2.33	2.32	2.33	2.80	2.10	3.01
69	Richmond	2.13	1.85	2.22	1.98	2.59	2.45	3.18
74	Virginia Beach/Norfolk	1.80	2.10	2.10	2.10	2.10	1.40	3.17
76	Deltona/Daytona Beach	2.10	1.93	1.63	1.75	2.10	2.10	2.87
South average		2.73	2.98	3.08	2.98	2.91	3.04	3.51

Source: *Emerging Trends in Real Estate 2017* survey.

*Average score of local market participants' opinions on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

Exhibit 3-17 Northeast: Sector and Local Outlook Scores

Overall rank		Investment prospect scores, by sector						Local outlook score*
		Office	Retail	Industrial	Multifamily	Hotel	Housing	
12	Boston	3.68	3.63	3.81	3.41	3.75	3.90	4.04
13	New York–Manhattan	3.81	3.89	3.80	3.75	3.38	3.30	4.02
16	New York–Brooklyn	3.59	3.71	3.90	3.63	3.25	2.63	4.00
27	Philadelphia	3.56	3.48	3.75	3.69	3.00	4.00	3.76
28	Pittsburgh	3.65	3.08	3.62	3.70	3.00	3.33	3.48
30	Northern New Jersey	3.03	3.40	3.59	4.00	2.92	3.38	3.50
34	Baltimore	2.83	3.17	3.50	3.72	3.07	3.00	3.23
39	Long Island	2.70	3.21	3.29	2.97	2.85	3.15	3.38
44	New York–other boroughs	2.22	3.05	2.75	2.63	2.15	2.80	3.55
49	Westchester, NY/Fairfield, CT	2.25	2.88	2.63	2.81	2.25	2.75	3.28
73	Portland, ME	1.75	2.10	2.45	1.75	2.57	2.10	3.38
75	Providence	1.40	2.00	2.22	2.45	1.40	2.80	3.01
77	Hartford	1.40	1.85	2.02	2.45	1.58	2.80	2.71
78	Buffalo	2.10	1.75	1.75	1.40	1.75	1.75	2.75
Northeast average		2.71	2.94	3.08	3.03	2.64	2.98	3.44

Source: *Emerging Trends in Real Estate 2017* survey.

*Average score of local market participants' opinion on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

Exhibit 3-18 Midwest: Sector and Local Outlook Scores

Overall rank		Investment prospect scores, by sector						Local outlook score*
		Office	Retail	Industrial	Multifamily	Hotel	Housing	
19	Chicago	3.39	3.54	3.72	4.07	3.28	3.64	3.56
26	Indianapolis	3.02	3.19	3.66	3.80	3.68	3.72	3.65
38	Minneapolis/St. Paul	3.40	3.52	3.34	3.74	3.40	1.02	3.69
41	Cincinnati	2.18	2.40	2.66	3.35	2.80	2.75	3.40
42	Columbus	2.40	2.63	2.85	2.58	2.57	2.70	3.84
48	Kansas City, MO	2.53	2.53	2.76	2.68	2.63	3.00	3.54
50	Detroit	2.40	2.55	2.91	2.70	2.56	3.00	3.29
53	St. Louis	2.44	2.25	2.50	2.75	2.25	2.50	3.11
55	Cleveland	2.34	2.29	2.78	2.40	2.29	2.93	3.25
57	Des Moines	1.44	2.16	2.76	2.16	2.88	2.16	3.69
58	Madison	2.10	2.45	2.80	2.10	2.80	2.45	3.73
65	Milwaukee	1.90	2.36	2.48	2.18	2.38	2.10	3.21
70	Omaha	1.75	1.75	2.28	1.75	2.80	1.75	3.63
Midwest average		2.41	2.58	2.88	2.79	2.79	2.59	3.51

Source: *Emerging Trends in Real Estate 2017* survey.

*Average score of local market participants' opinion on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

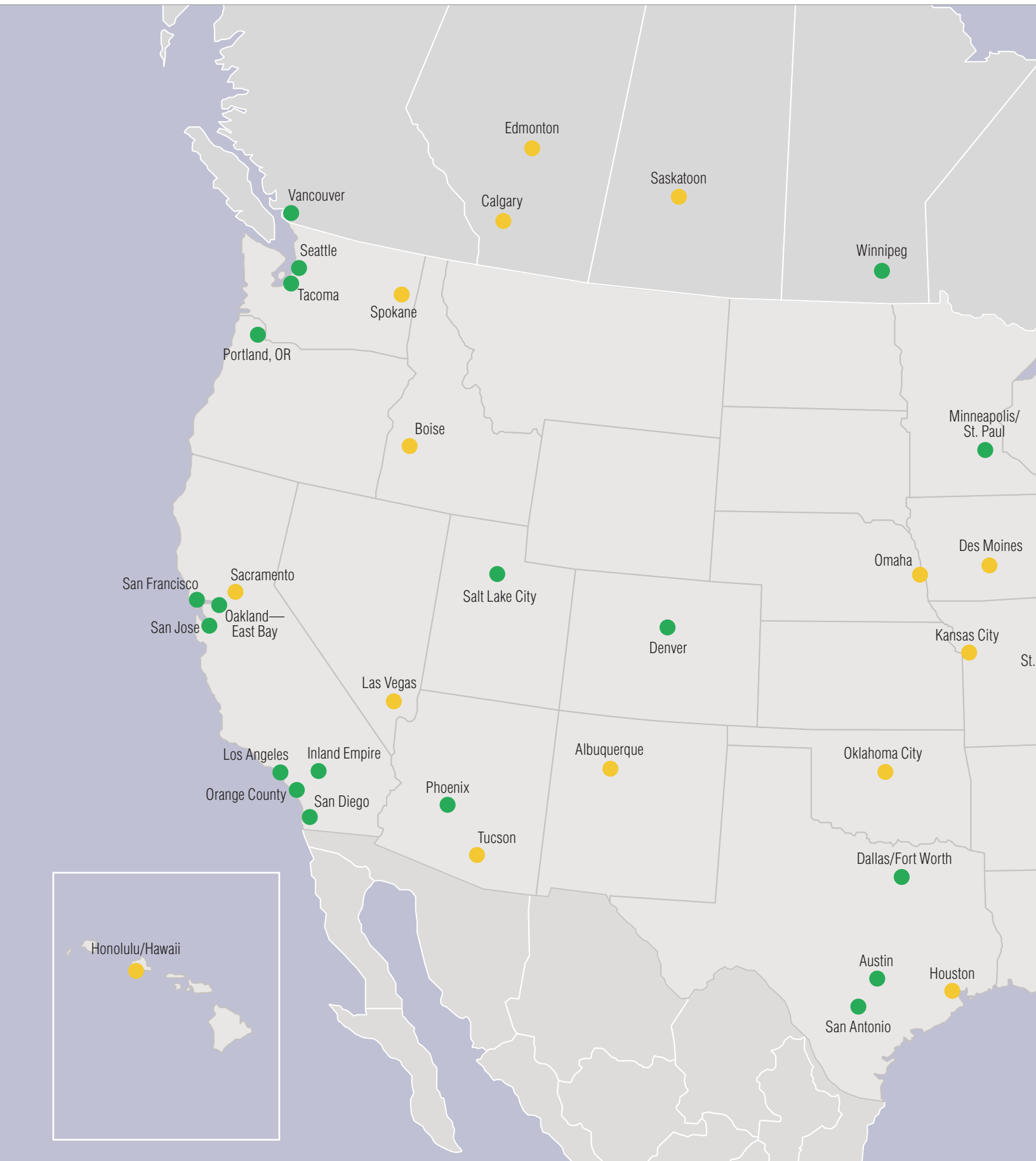
Exhibit 3-19 West: Sector and Local Outlook Scores

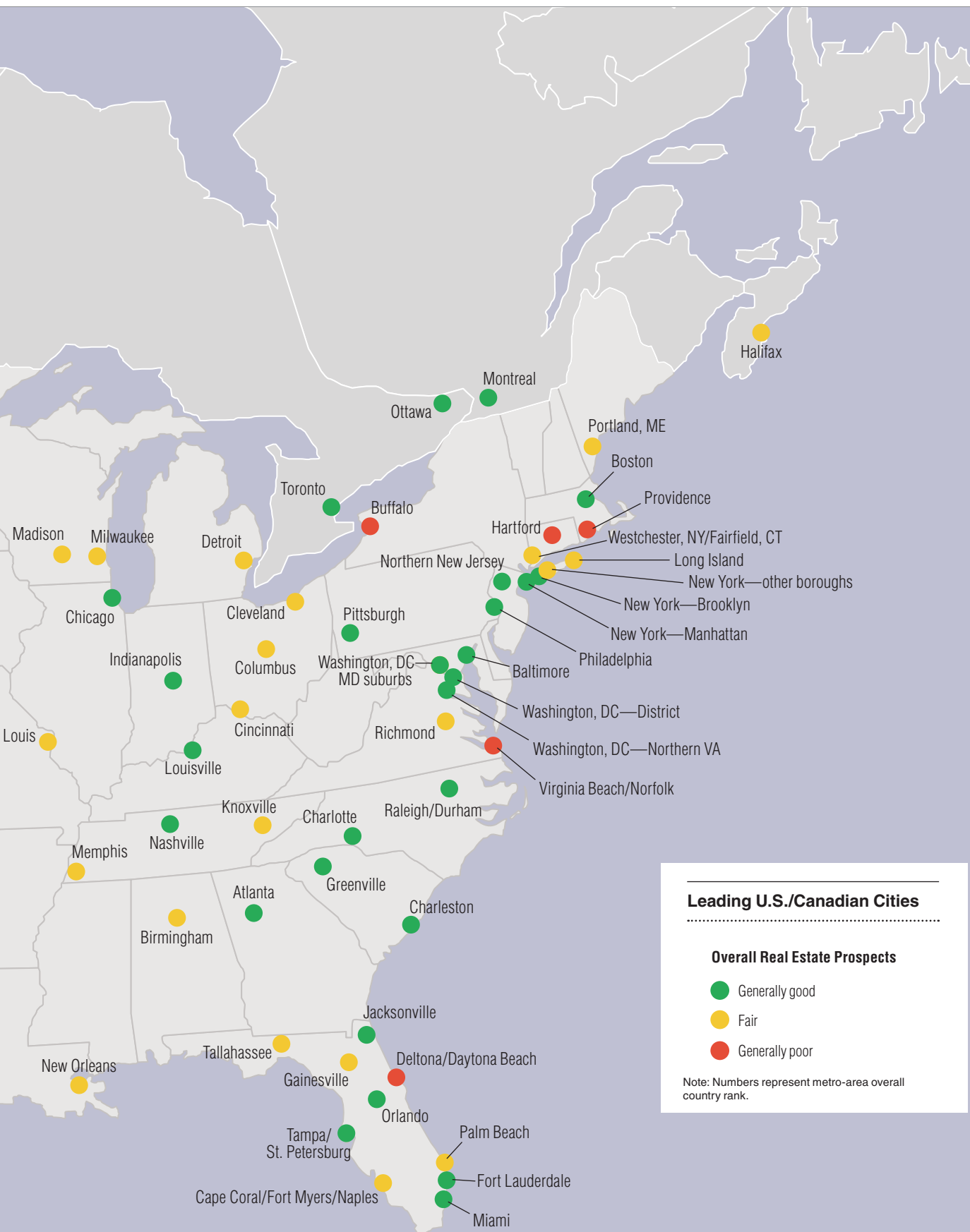
Overall rank		Investment prospect scores, by sector						Local outlook score*
		Office	Retail	Industrial	Multifamily	Hotel	Housing	
3	Portland, OR	3.80	3.58	3.90	3.68	3.27	4.13	3.98
4	Seattle	3.63	3.66	3.85	3.88	3.55	3.82	4.15
5	Los Angeles	3.58	3.52	3.84	3.92	3.53	3.81	3.92
8	Orange County	3.51	3.69	3.77	3.97	3.70	4.06	3.97
10	San Francisco	3.50	3.76	3.71	3.81	3.64	3.57	4.08
11	Denver	3.53	3.69	3.61	3.79	3.36	3.69	4.06
14	Oakland/East Bay	3.72	3.60	3.84	3.96	3.09	4.00	3.92
17	San Jose	3.23	3.36	3.73	3.57	3.71	3.67	3.94
18	Salt Lake City	3.65	3.56	3.46	3.43	3.68	3.59	3.89
21	Phoenix	3.44	3.48	3.75	3.50	3.62	3.53	3.66
23	San Diego	3.33	3.56	3.74	3.63	3.27	3.67	3.82
36	Inland Empire	2.56	3.05	3.46	3.88	2.88	3.21	3.49
45	Sacramento	2.60	2.63	2.92	2.60	2.00	3.37	3.45
46	Boise	2.45	2.45	2.26	2.28	2.80	2.80	3.73
52	Honolulu	1.70	2.50	2.64	2.80	2.45	3.50	3.40
61	Las Vegas	1.78	2.26	2.59	2.45	2.59	3.86	3.43
62	Tucson	1.93	2.33	2.36	2.10	2.45	2.10	3.02
64	Albuquerque	1.68	2.22	2.54	2.45	2.57	2.10	3.09
71	Spokane, WA/Coeur d'Alene, ID	2.10	2.45	2.30	1.75	2.80	2.80	3.20
72	Tacoma	1.82	2.57	2.04	2.80	1.75	2.98	3.47
West average		2.88	3.10	3.22	3.21	3.03	3.41	3.68

Source: *Emerging Trends in Real Estate 2017* survey.

*Average score of local market participants' opinions on strength of local economy, investor demand, capital availability, development and redevelopment opportunities, public/private investments, and local development community.

Note: Additional market-specific data from the 2017 survey are available in the online *Emerging Trends in Real Estate® 2017* at uli.org/et17 or www.pwc.com/us/etre.





Property Type Outlook

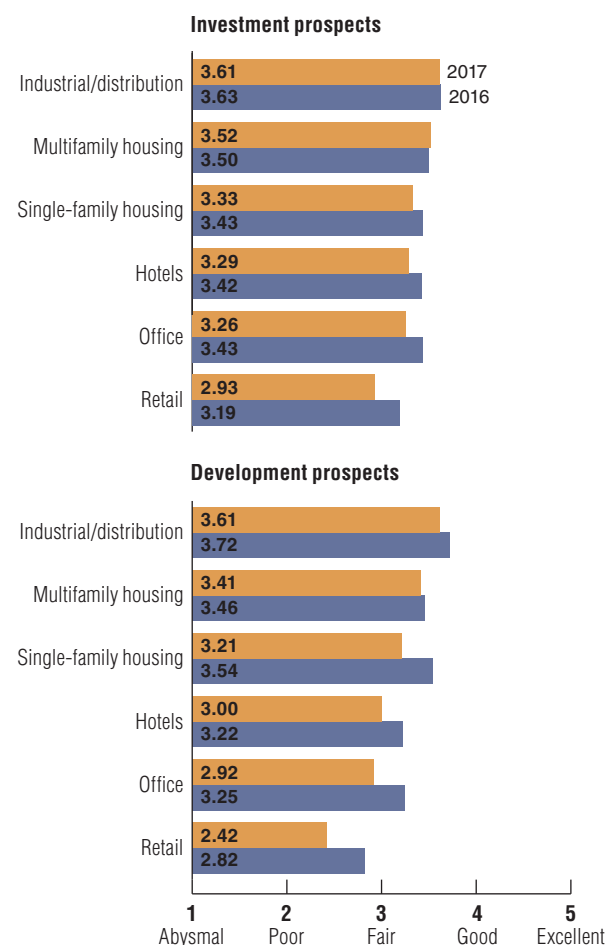
“Sector allocation has shifted into **defensive** mode.”

Investors are increasingly jittery about uncertainties in the market. In this environment, what is the pecking order among property types?

Property type selection is one strategy that multisector investors are using to control downside risk. Although a near-term recession is not being widely forecast, institutions appear to be preparing for eventual cyclical weakness.

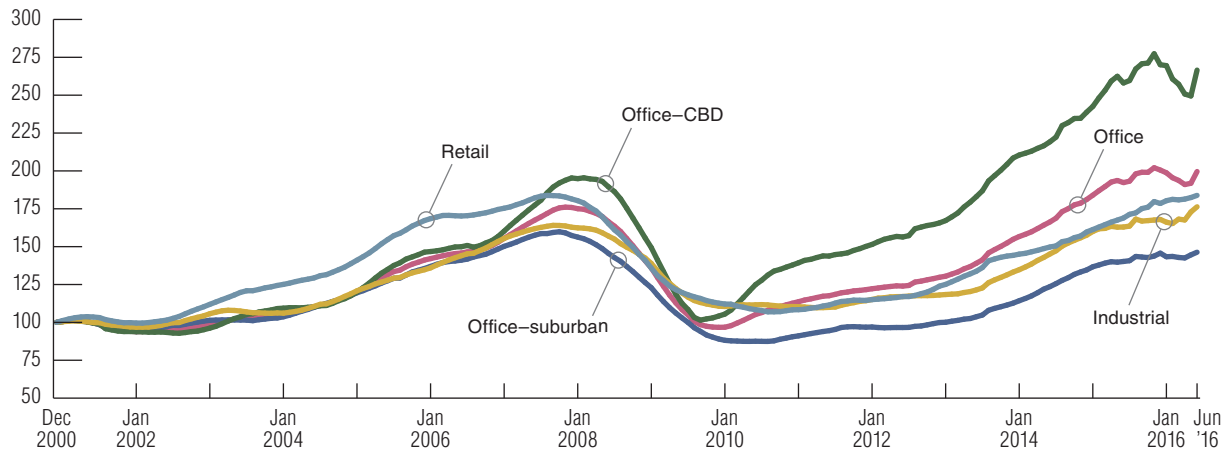
- Industrial rates well as a defensive sector, typically performing well during economic slowdowns.
- Most investors continue to favor apartments as a relatively safe investment in a possible downturn.
- Single-family homes generally remain in favor, but investors view them less positively than they did last year.
- The office sector is less in favor with U.S. institutions that see it performing badly in economic contractions and highly sensitive to job numbers.
- The retail sector has two principal types of investors: those who have deep experience and those who tend to react to headlines. The former find it a promising sector for 2017. The latter are net sellers.
- Hotels are the most volatile properties through market cycles, and concern exists that they have hit a peak already.
- As yields for most high-quality core real estate investments have become compressed, some investors have shifted funds to various niche asset classes, including medical office buildings, self-storage, student housing, senior living, data storage, and manufactured housing.

Exhibit 4-1 Prospects for Major Commercial Property Types, 2017 versus 2016



Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

Exhibit 4-2 Moody's/RCA Commercial Property Price Index, by Sector



Sources: Moody's and Real Capital Analytics.

Note: Updated August 2016; data through June 2016.

Some investment advisers recommend a strategy of “having dry powder.” While this partially applies to having staying power if property values fall in the next recession, for some it means having capital to buy core properties at reduced or distressed prices if a downturn should occur.

Industrial

“Industrial has become the darling investment type over multi-family,” according to a participant in the northern New Jersey focus group. The most favored sector for the past two years, industrial again takes top billing in 2017.

Our survey rated industrial the best opportunity for investment and development. Most investors who have industrial in their portfolios continue to be net buyers. The advantages of industrial include continued strong demand drivers, restrained construction, and lower perceived risk. Strong locations in growing metro areas are typically supply constrained.

A life insurance company executive observed that “our industrial portfolio is over 90 percent leased, and we are seeing pricing power in a lot of markets.” In addition, he noted that “some fairly heavy hitters in the industrial world . . . are talking about times being as good as they have ever been in their career.” A real estate investment trust (REIT) analyst notes that “there are only 11 REITs in this sector, but they are doing a good job of restructuring the nation's distribution system.” In a Charlotte focus group, a participant exclaimed, “Industrial is as hot as a firecracker!”

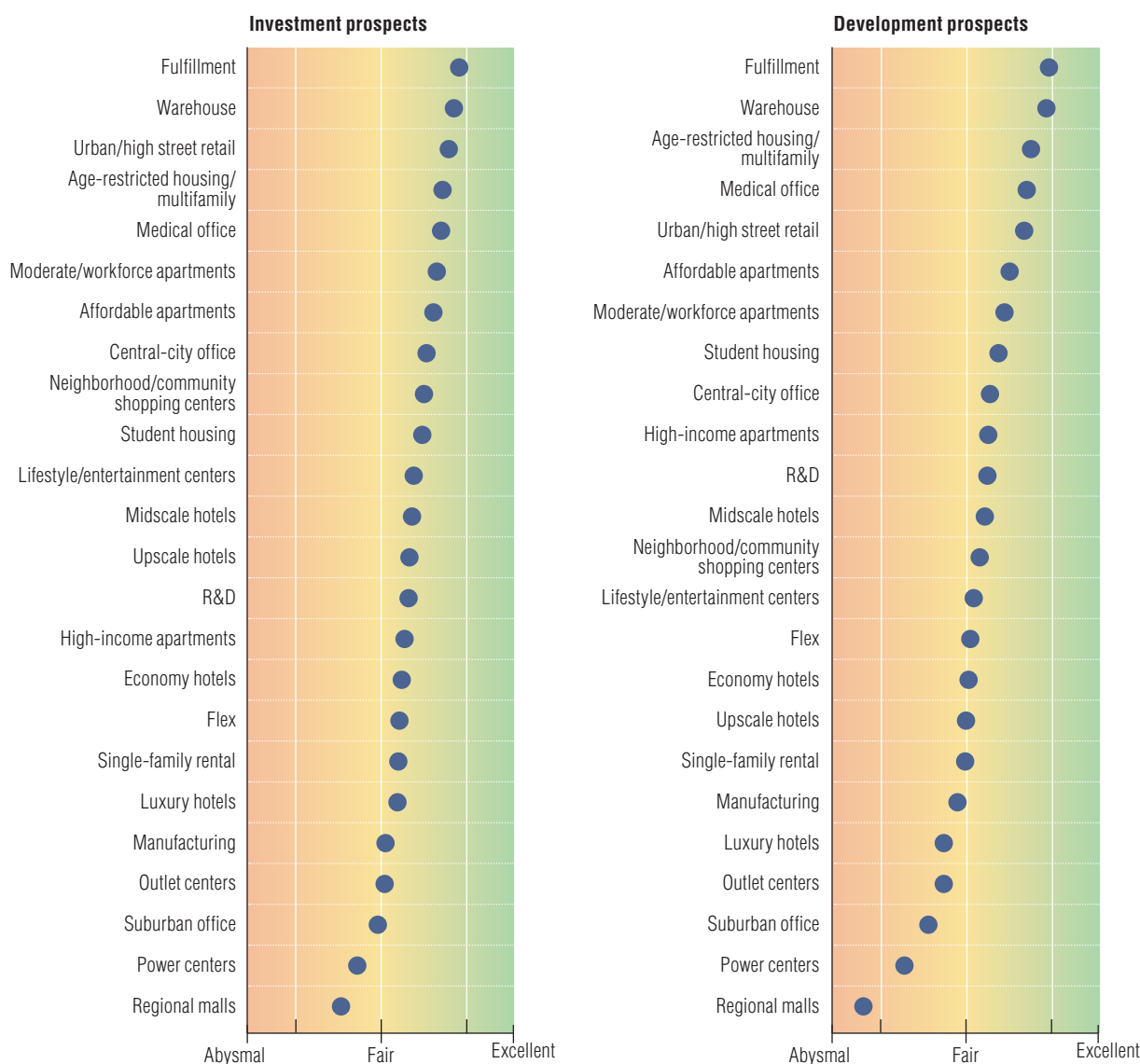
Major port and metro distribution markets, including South Bay/Los Angeles, the Inland Empire, Chicago/O'Hare, Boston, the San Francisco Bay area, and northern New Jersey, are at the top end of the industrial stack. Properties in these markets are highly coveted, even in a downturn. Distribution markets in Seattle, Miami, Portland, Dallas, Atlanta, Houston, and Vancouver are a notch down but still highly sought after.

A number of investors may take leasing risk and speculatively build warehouses on the strength of the local market. Since construction typically takes just six to 12 months, investors' fears of completion into a downturn are lessened. Few anticipate a near-term contraction. For big-box distribution products, “People are aware of functionality issues and they are demanding best-in-class buildings,” according to a member of several corporate real estate boards. “Seventy percent of all leasing done in the last two years was in buildings that were two years old or newer.”

Given strong demand and high land costs, our Orange County focus group saw the “possibility for ground-up, multistory industrial to step forward.” Separately, a developer made a similar statement about the Port of Oakland market. Europe and Japan are seen as the working models for such development.

Less enthusiasm exists for R&D/flex product, oriented toward smaller tenants. At the Sacramento focus group, this subsector was said to be “recovering slowly. Small industrial buildings were hit very hard with the housing downturn, and pricing is less than the cost to build.” However, some see this as an opportunity as the small-tenant market recovers.

Exhibit 4-3 Prospects for Commercial/Multifamily Subsectors in 2017



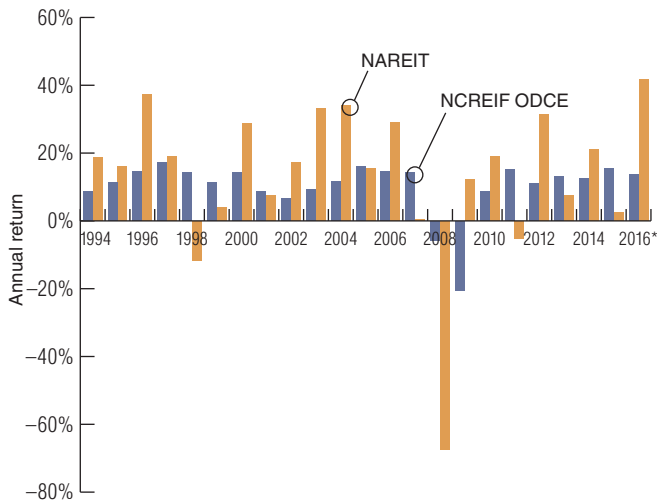
Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on U.S. respondents only.

A trendier part of the market is “the last mile” distribution center (see our discussion of “best bets” in chapter one). This subsector scored the highest rating in our survey. E-commerce vendors are increasingly offering practically immediate delivery in some markets, so they require distribution facilities close to the customer. These necessarily are in expensive locations in a broad range of sizes, and may be newly built or adaptations of older buildings. These have considerable pricing power.

Unquestionably, e-commerce is transforming warehouse demand. A life insurance company executive feels that there is “a shifting of retail product from traditional stores through to distribution centers,” thereby driving demand. An Indiana focus group participant mentioned that “a power center retailer leases more industrial than retail space.” An investment manager/adviser observed a sale in “downtown Los Angeles for an astonishing \$230 per square foot.” He thinks “it would have been worth the price, given the access to population.”

Exhibit 4-4 U.S. Industrial Property Total Returns



Sources: NCREIF Fund Index—Open-End Diversified Core Equity (ODCE); NAREIT Equity REIT Index.

*Returns as of June 30, 2016.

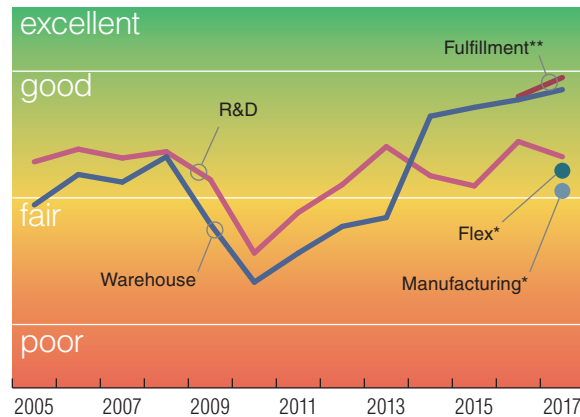
Another investment manager/adviser said regarding last-mile distribution space, “You don’t need the 40-foot clear; you can’t bring in 18-wheelers. You are using alternative delivery methods from trucks to bicycles.” Reflecting the potentially high values, “potentially you scrap an old office building and put a small warehouse there.” A life insurance company executive notes that “it is hard to acquire that stuff and it is actually fairly expensive to develop, but the market demand for it is really strong.”

Older warehouses are being converted into creative space that can also drive healthy rents. This is clearly a niche product, but some investors are active in this market. Another life insurance company executive advocates that “these are exciting times for acquiring older industrials with this potential. Such buildings are not being replaced, so there is a scarcity.”

Having seen considerable appreciation, industrial “pricing is at a premium to replacement cost,” according to an investment manager/adviser. “As a result, our strategy has been development, or ‘build-to-core.’” Another investment manager/adviser favors “forward commitments on construction.” A private equity investor notes that “speculative industrial space generates a 375-basis-point spread” for development, making it attractive for equity investors.

A data vendor opines that in 2017, he expects “a pick-up in sales, driven by foreign capital. More industrial portfolios could come to the market, and if so would be well received. Most foreign investors understand logistics.”

Exhibit 4-5 Industrial/Distribution Investment Prospect Trends

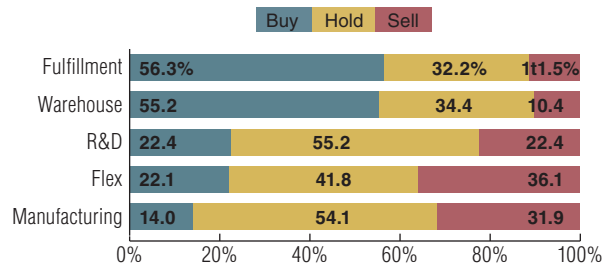


Source: *Emerging Trends in Real Estate* surveys.

*First year in survey.

**Second year in survey.

Industrial/Distribution Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate* 2017 survey.

Note: Based on U.S. respondents only.

Apartments

Apartments have had a long run of success. In our *Emerging Trends* survey, apartments rank in second place, both for existing product and new development. Multifamily was an early-recovery sector, attracting early capital from institutional investors and REITs. As a result, yields fell and new construction began, focused on major urban cores. Debt and equity have become increasingly available.

A number of factors account for the enduring strength of the apartment sector: 1) entry into the job market of the massive millennial generation, who are a prime age cohort for rentals; 2) consumers’ wariness of for-sale housing product following its massive loss in value during the housing market crash of 2008; 3) credit issues for consumers, compounded by student debt, and tightened bank requirements for home mortgages; and 4)

general consumer preference to remain flexible in their lifestyles, which is facilitated by rental housing. One REIT investor noted that “the average age of their residents is 35, so [the upper end of the millennials] are all coming through the pipeline. We are also seeing increased demand from older residents,” as evidence of emerging demand from baby boomers.

Apartments are expensive to build now. Since demand is strongest for apartments in walkable urbanized environments near job centers, these expensive locations are receiving the most attention from investors and developers. Tenants make trade-offs between size and location. In order to get the latter, they are typically renting smaller units. In some particularly high-cost markets, developers have found demand to be particularly strong for studio units by millennials who have tired of having multiple roommates. This has been taken to an extreme with micro units that come fully furnished. A high level of amenities, particularly public social spaces, is needed since entertaining in small apartments is difficult. A rental lifestyle facilitates job moves as well as travel.

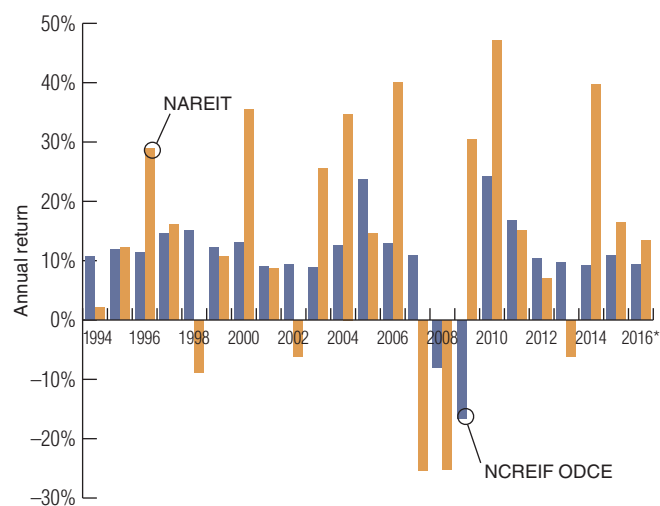
A real estate investor noted that “for multifamily, the debt side has never been better. Government-sponsored enterprises [GSEs] are very aggressive and price very well.” Capital availability is fueling high pricing for existing assets and a healthy development pipeline.

Apartments’ strong multiyear performance, along with robust development, is creating worries. Yields in the prime apartment sector have been driven to historic lows. In major markets, rental rates and net operating income (NOI) growth are either slowing, flat-lining, or in a few cases declining modestly. This is particularly the case in such markets as New York, San Francisco, and Seattle. One investment manager/adviser quipped, “Supply constrained, really?” when referring to the large volume of new construction in these three markets. Demand remains strong, but rents are hitting levels that are unaffordable to most of the younger workforce. Further rent growth may be hard to achieve.

In less mature and less expensive markets, rents and NOI growth remain robust but are slowing as well. One developer noted, “With such low inflation, rents cannot continue to go up at current high rates.” Given low yields, U.S. institutions and REITs are no longer such willing buyers at prices they feel are inflated. Many are developing instead. Foreign buyers, however, are still active purchasers, thereby supporting robust pricing.

Given the substantial total returns that apartments have produced in the past five years, an executive of a major life insurance company notes that “no investments grow at above-

Exhibit 4-6 U.S. Multifamily Property Total Returns



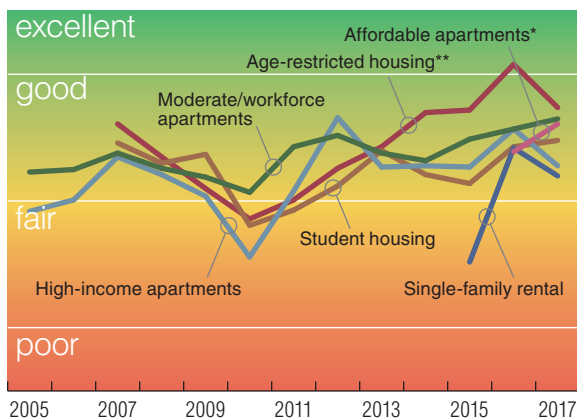
Sources: NCREIF Fund Index—Open-End Diversified Core Equity (ODCE); NAREIT Equity REIT Index.

*Returns as of June 30, 2016.

trend returns forever.” A real estate economist noted that local developers did not see the downturn coming in Houston apartments, and that “we are going to see the same thing in the tech markets a year or two from now.” In addition, some worry that as the advance guard of the millennial generation crosses over into their 30s (the range currently is 26 to 35 years old), they are likely to start buying houses and settling down to start families.

Still, U.S. investors see potential for reasonable risk-adjusted returns. New construction appears to be tapering off nationally. Some developers are trying to rein in high rents by producing smaller apartments, with some success. Adaptive use of office and warehouse buildings continues to be a popular strategy, particularly in markets where surplus buildings are available.

Empty-nester baby boomers have been increasingly interested in luxury urban apartments, in some cases outpacing the millennials. These renters are typically either relocating from a home in the suburbs or establishing a “pied-à-terre” for urban use. Some capital sources continue to invest in new development either through precommitment or “build-to-core” but indicate that margins have slimmed to unattractive levels. As a result, some are pursuing similar deals within an urbanized inner suburban ring. This trend seems to have some legs as rents rise in these suburban locations and new supply has been slower to materialize. Such markets as the Hudson Riverfront in New Jersey, northern Virginia, Oakland, and the Tri-Cities in southern California were mentioned as attractive opportunities.

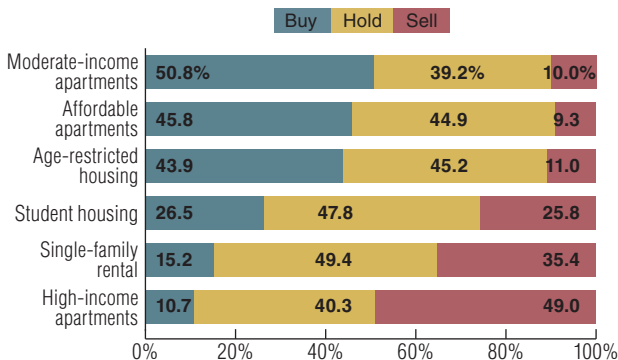
Exhibit 4-7 Apartment Investment Prospect Trends

Source: *Emerging Trends in Real Estate* surveys.

*Second year in survey.

**2005–2016 data reflect the previous category of “senior/elderly housing”; 2017 data reflect the new category of “age-restricted housing.”

Apartment Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate* 2017 survey.

Note: Based on U.S. respondents only.

Interest remains strong in Class B apartments in strong urban and inner suburban locations. Moderately priced or workforce apartments rate especially highly in our survey. A number of investors have indicated that pricing of unrenovated units has taken the “juice” out of such deals, so it is better to buy them already renovated. Nevertheless, these properties are quite attractive since their lower rents appeal to a broader segment of the population, and contribute to investors’ defensive strategies.

Given the demand for apartments throughout the United States where job growth is robust, many investors are straying from the top 20 markets. Metro areas like Nashville, Charlotte, Raleigh/Durham, Portland, and even Phoenix are attracting investors into their more urban submarkets.

The large institutions do not find suburban garden apartments in supply-unconstrained markets interesting. “Atlanta and Dallas will always overbuild” was mentioned by a portfolio manager, and reflects the sentiments of a number of investors. This comment generally refers to auto-dependent suburbs, rather than more urban submarkets.

Overall, there will likely continue to be net additions of apartments to U.S. investors’ portfolios, but such activity is likely to be muted relative to the levels seen in the past few years. A pullback by lenders for new construction is likely to correct any imbalance fairly quickly.

Affordability was cited as a key issue for renters, particularly in high-cost job growth markets. Nonsubsidized new construction is basically infeasible. In past cycles, older product may have trickled down to lower-income renters, but in this cycle new construction has been insufficient to moderate rent increases on this older product.

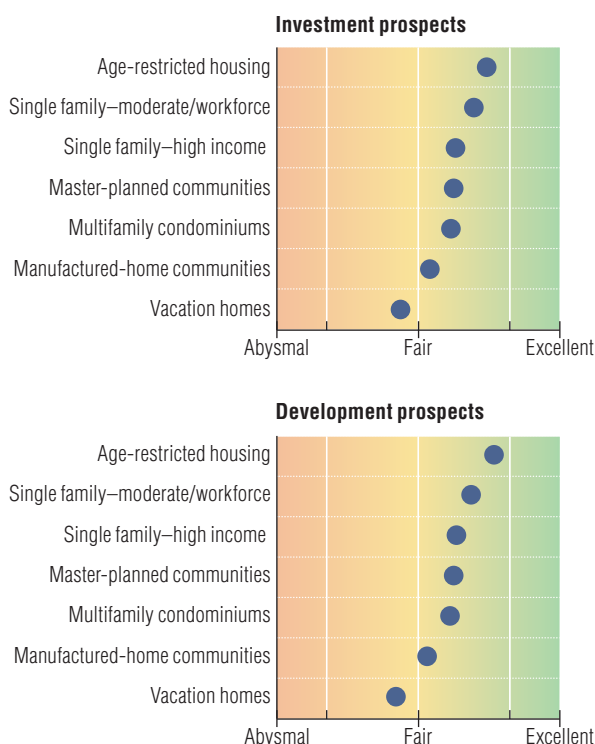
Single-Family Homes

Investor appetite for single-family home development has come late in this cycle, given the sector’s collapse during the global financial crisis and the market preference for rental urban housing over the course of the recovery. The Case-Shiller Index for June 2016 shows national home prices 1.2 percent below their peak of July 2006, providing evidence of the slow national recovery. However, pricing has been accelerating in urban and inner suburban markets near transit and employment centers in major markets. In last year’s survey, single-family was the most popular development sector; this year, it has fallen to third place but is still well regarded.

At present, investors involved in this sector are quite bullish and believe that in most growth markets, for-sale homes are undersupplied. Low interest rates have made housing more affordable, even though credit standards and terms have been tightened by lenders. Most first-time buyers can access federal government programs with low downpayments, and now the GSEs are readying a similar program. A residential community developer stated that his firm “continues to develop lots and sell [them] to homebuilders. There is a shortage of housing, and the market fundamentals continue to stay strong.”

A real estate economist opines that single-family homes and rentals “are strong sectors and are fundamentally undersupplied.” An industry association economist notes, “There is no evidence of overbuilding anywhere.” One reason is a lack of

Exhibit 4-8 Prospects for Residential Property Types in 2017



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on U.S. respondents only.

debt financing for new lot development. In past cycles, homebuilders purchased lots from community developers. Currently, they must use their balance sheets to develop lots themselves. For community developers, equity and alternative financing—both of which are expensive—are the remaining options.

With costs high, few builders are targeting middle-income buyers. These buyers were traditionally served in suburban locations at the urban perimeter, where land was inexpensive. Today, the market is not there for homes in fringe locations at the prices new construction requires. Instead, homebuilders have been targeting more affluent buyers, who prefer to live close to job centers and within well-regarded school districts. Land that meets these requirements is limited and therefore expensive. Many municipalities have compounded this expense with high fees. In a North Texas focus group, a participant mentioned that municipalities “push for smaller lots and more density to keep costs affordable.”

With new construction muted, existing homes in good locations are rapidly appreciating. The industry association economist

previously mentioned notes that unlike in past cycles, existing homes are not serving first-time homebuyers. “The most important statistic to watch is the share of existing-home sales to first-time buyers: 40 percent is a healthy number; a few years ago, it was 25 percent; and it is now about 33 percent.”

Nevertheless, many investors see the generational demand accelerating. Over 41 million Americans are currently in their 30s, while another 21 million should enter this bracket in the next five years. This could provide excellent opportunities for single-family. An investment manager/adviser feels that “many millennials will want to have families and quite frankly the failure of urban public education in the U.S. means that they actually have to move.” The combination of rising housing prices and declining inventory in suburban markets provides excellent prospects for homebuilders who can develop in attractive communities. Interest rates are expected to remain low—a huge benefit to the industry. In many cases, these homes are being built to densities higher than the norm in previous cycles, in exchange for location.

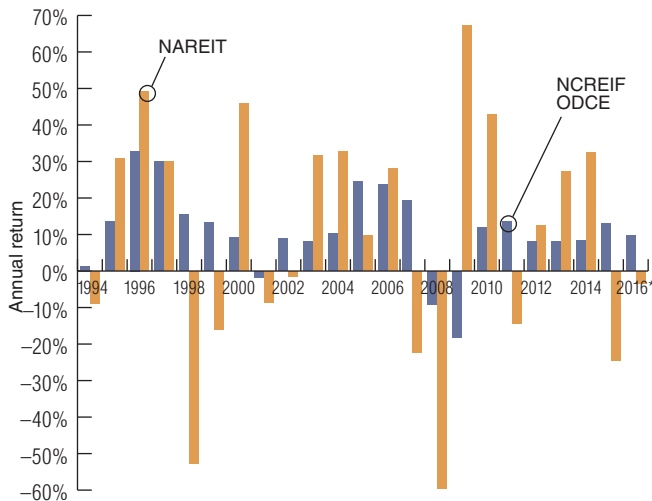
Potentially stronger for-sale housing demand is hobbled by a lack of affordability. New homes that are developed tend to be for a high-income market. Since inventory has been tight, there is not a lot of room for the trickle-down effect on existing homes. The National Association of Realtors and others worry about Americans’ decreasing ability to buy homes. It seems unlikely that we will see the U.S. homeownership rate edge above 65 percent anytime soon.

Hotels

The hotel sector has had a great run in this cycle, but new supply, competition from shared lodging hosts and a flattening of growth in corporate travel have muted enthusiasm for this asset class. Nevertheless, the sector ranked fourth of the major six sectors in our survey, down noticeably from last year. Midscale hotels ranked best, followed by upscale, while economy and luxury hotels lagged. Enthusiasm for development of new hotels has fallen even further. As the CEO of one lodging advisory firm put it, “The hotel industry is the first to clear the market as cycles shift, because room inventory clears the market every night.”

Costs are a significant issue. Rising wages and labor shortages in major markets are a real concern. Since the hotel sector tends to fall the farthest of the top five real estate sectors in a recession, it is common for institutional investors to sell hospitality assets at a mature point in a cycle, as we are seeing now. An investment manager/adviser stated that their strategy “is not long-term holds, but buying near bottom of the cycle and selling

Exhibit 4-9 U.S. Hotel/Lodging Property Total Returns



Sources: NCREIF Fund Index—Open-End Diversified Core Equity (ODCE); NAREIT Equity REIT Index.

*Returns as of June 30, 2016.

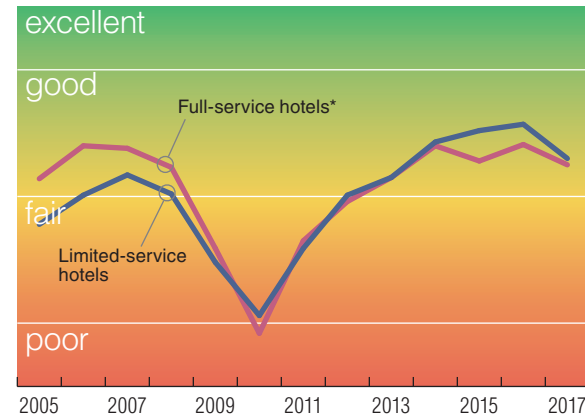
at the top.” A lender stated that “the best time for hotels is in the past.” So he does not favor hotel lending in 2017.

The hotel industry has generally downplayed the impact of shared lodging and short-term rental websites while operating fundamentals remain strong. A REIT analyst noted that “hotels are saying that these alternative rentals handle fluctuations in demand such as peak periods and conventions.” However, he notes that “it takes rate pressure off these periods and they really provide the gravy for hotel investors.” Hotel REITs are widely considered “fully priced.” However, merger activity is still producing overhead savings and economies of scale for some of the large chains.

A pension fund adviser said, “Hotels have not seemed to understand the likely long-term impact of shared room providers. New York City is starting to feel it, with a lot of new hotel rooms hitting the markets.” A recent study shows a major shared lodging provider with a 9.9 percent market share of room inventory in the ten largest and most popular tourist markets across the United States. Most major markets, however, are still seeing strong hotel performance, even with this growing competition.

Off-shore investors have been active in the hotel sector, as have some opportunity funds and private investors. Market fundamentals appear much better than at other market peaks. Besides New York and a few other markets, room-night growth has been restrained. For example, San Francisco has had almost no new supply in spite of high occupancy and room

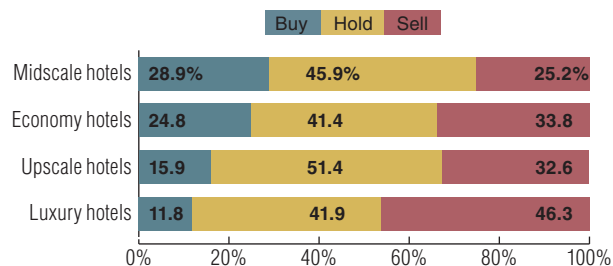
Exhibit 4-10 Hotel Investment Prospect Trends



Source: *Emerging Trends in Real Estate* surveys.

*2017 result is the average of investment prospects for three categories—luxury, upscale, and midscale hotels; prior years’ results are based on investment prospects for a single category—full-service hotels.

Hotel Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on U.S. respondents only.

rates. With urban economies that continue to grow, some see opportunity. Nevertheless, a real estate economist opined that “we have a lot of hotels—not a bubble yet, but a lot.” He particularly noted that high-end hotels appear headed for oversupply. Another real estate economist noted that “RevPAR will increase by 2 percent a year and their expenses are going to go up by 4 percent a year.” As “labor cost goes up, it is eating into profit.” That may be one reason why the limited-service and economy sectors now look like the growth areas for hotel firms, which are selling attributes such as reliability, safety, and accountability in response to the more diffuse sharing-economy facilities.

Segmentation and branding afford a menu of choices for travelers. Hoteliers seek to attract millennials at different price points through active public spaces and scheduled “mix and mingle” events. Other concepts have emerged that provide refined quiet-luxury boutique products in great locations that have met with success, particularly with baby boomers. Value-oriented

customers are also finding products that are far less bland than their options in the past.

On the whole, said one analyst, “This is not a time to stick your head out. There is no low-hanging fruit. It is a time to grow your brands and invest in the future. Hoteliers should weather the cycle now to seize the opportunities ahead.”

Office

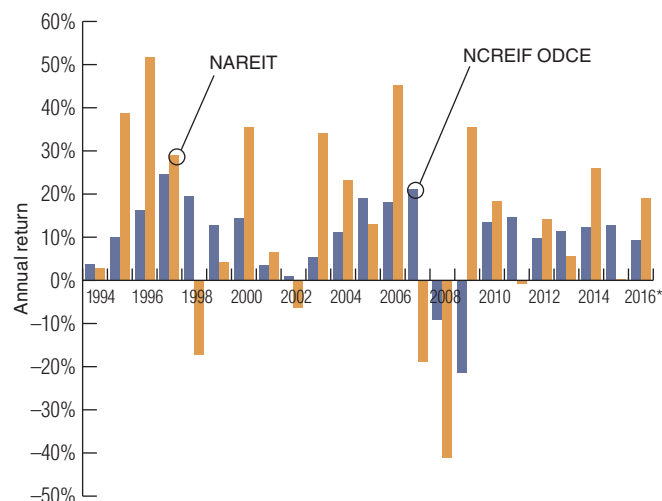
Office investments ranked next to last in our *Emerging Trends* survey, down significantly from last year. New development sentiment fell even further. Central city office investment ranked somewhat better in our subsector survey, whereas suburban office is ranked close to the bottom.

There is no question that the office sector has had a great run. Both the NCREIF National Property Index (NPI) and National Fund Index (ODCE) are dominated by the office sector, which has generally represented approximately 40 percent of portfolio total value. It is also quite prominent in the NAREIT Index of public funds. There are several reasons for this: 1) central business district (CBD) office is an easy way to scale up a portfolio, with property values often ranging between \$100 million and \$1 billion; 2) it is a favored sector among many foreign investors, many of whom like to put out capital in large chunks; 3) it is a relatively glamorous sector, with buildings that photograph well and provide bragging rights; and 4) its performance during the economic recovery over the past five years has been stellar. And, over the past 20 years, offices have matched apartments in total return within the NPI portfolio, partly reflecting their recent strong performance.

Views on the future of this sector are mixed. Portfolio sales, a bellwether of institutional interest, are down 45 percent through July when compared with 2015 volume for the same period. But individual asset sales were up 3 percent over 2015 on a year-to-date basis. Overall, volume in the office sector through the first seven months was \$33 billion, as compared with \$33.4 billion last year. This sales volume reflects strong pricing and continued demand from some highly capitalized buyers. Institutional investors, however, are taking profits, particularly in major cities.

Foreign capital has been leading the charge for prime CBD office. Some major domestic private buyers have been active as well. These buyers have bid yields downward. Most of those interviewed do not expect a slowing of demand from off-shore buyers in 2017. REITs are tending to hold their prime office assets, but are building new product, rather than buying existing assets.

Exhibit 4-11 U.S. Office Property Total Returns



Sources: NCREIF Fund Index—Open-End Diversified Core Equity (ODCE); NAREIT Equity REIT Index.

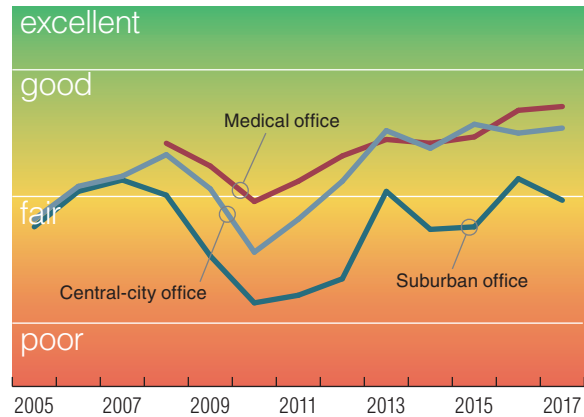
*Returns as of June 30, 2016.

Most institutional investors interviewed feel that 2017 could be near the peak of the economic cycle. This seems a good time to lighten up on the office portion of their portfolios. Office underperforms relative to most other property sectors in a downturn based on their experience, so this is a de-risking strategy. These investors are underweighting offices relative to the NPI, rather than exiting the property type. Office will remain a significant component of institutional portfolios.

Some institutional investors are following a different urban strategy in order to avoid competing with foreign and other aggressive buyers. These have typically been boutique investments, either Class B buildings in great markets or in emerging submarkets. These are often value-add renovation strategies that frequently target the creative industries and tech tenants.

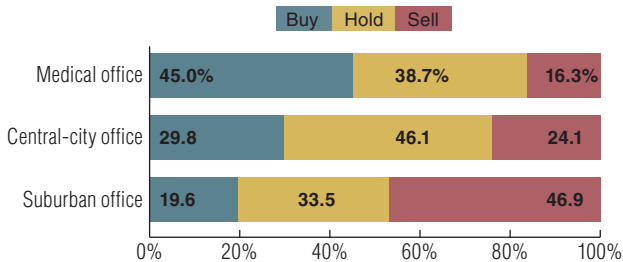
Suburban office has been distinctly out of favor. Nonamenitized suburban office park properties, most of which are already nearly illiquid except to opportunity investors, will likely fall further in value in 2017. An investment manager stated, “We have probably seen them peak.”

Sophisticated investors are not painting all suburbs with the same broad brush. A number of investors are looking at good-quality office buildings in amenitized, inner-suburban locations, preferably on transit lines. These are walkable locations with nearby food and beverage, retail, residential, and transit offerings. Tysons Corner in northern Virginia was mentioned as a particularly interesting market, while others mentioned include

Exhibit 4-12 Office Investment Prospect Trends

Source: *Emerging Trends in Real Estate* surveys.

Office Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate* 2017 survey.

Note: Based on U.S. respondents only.

Walnut Creek, California, and Bethesda, Maryland. One niche strategy has been investment in biotech or life-sciences buildings in locations that are not CBD but still urban locations. One developer stated that “life-science buildings have been very strong [for us].”

Suburban office buildings not in walkable, transit-accessible locations do not have much of a market in the institutional world. REITs are generally selling off such assets, as are pension funds. Buyers regard them largely as price plays. Maturing debt is expected to bring to market “underwater” assets in 2017. Deep discounts could be required to move these properties. Some opportunistic buyers are likely to be interested, though, believing that they can be rented to cost-conscious tenants.

Operational issues also factor into the investment outlook for office. Tenant improvement and other capital expenditures are oft-cited concerns. A developer says, “We are not actively looking for office assets because of the amount of capital that is required to turn over tenants. The return on that is sometimes hard to justify.” One real estate company board member

remarked that “office buildings are hugely capital intensive; if you make a mistake, it will be tough to get out and you will be paying a lot.”

For developers, there is also the question of preleasing. Tenants have become skeptical of a developer’s ability to execute. High project costs dictate a high rental rate upon completion, which will be 18 to 24 or more months into the future, possibly during the next down cycle. This has put a lid on speculative construction, which might be this cycle’s saving grace from oversupply.

Investing office capital requires a certain amount of confidence about sustained demand. The technology, advertising, media, and information (TAMI) industries have accounted for much of the leasing activity over the past several years. For some, confidence is waning for the sustained ability of such firms to absorb office space.

We see widespread concern about major technology markets, particularly San Francisco/San Jose, Seattle, Austin, and Los Angeles’s west side. While these markets were early favorites during the recovery, a concern exists that they are played out and overpriced. Some even predict a “tech crash,” but they are in the minority. A capital data provider feels that “there are too many me-too companies that are not really innovative.” Also, high-profile tech centers are facing rapidly escalating housing costs, so that high-value employees may become more difficult to attract.

A number of investors demur, feeling that these markets remain solid for office. Initial public offering (IPO) pricing is fueling continued growth expectations, while several large firms are consciously remaining private in order to avoid market swings. Innovation continues, in particular for economy-enhancing efforts such as artificial intelligence, security strengthening, military, energy production/storage, and business-focused software.

Investors are more nervous about high pricing of prime office product than about market fundamentals. New construction has been constrained and is slowing except in a few prime CBD and tech-heavy locations. Construction companies have much less bandwidth as project managers and construction workers have migrated into other professions or moved away. Furthermore, land costs may make this “the first cycle in which residential, not office, is the highest and best use at peak,” according to a portfolio adviser. Construction financing, meanwhile, is almost impossible to access through banks.

For both new and existing office space, functionality is seen as key. This is where technology is affecting the workplace in

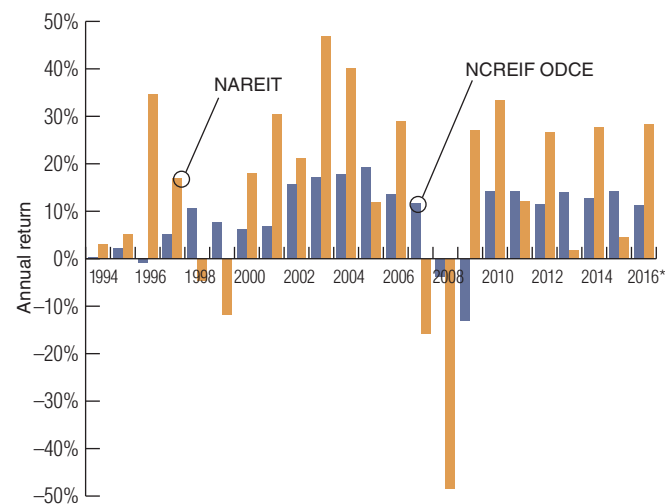
profound ways. Floor plates with considerable space devoted to communal or nontraditional spaces are the new standard. Prepared-food and coffee centers became a stereotype of Silicon Valley, where larger firms typically occupied campuses isolated from their surroundings. This model is beginning to change, with tech firms favoring better integration with the community, being part of a walkable live/work/play environment. Sites near rail transit are particularly favored. Emerging trends are normally evolutionary.

Urban models for tech and creative space involve the same open floor plan, high ceilings, and congregation space. Older cities often have an inventory of legacy office buildings and former warehouses that provide space with a lot of character. New construction is adapting to this model as well. An interesting example has been a social media company's headquarters, where an emerging location in San Francisco was selected in a former merchandise mart. At first, the surrounding area was economically challenged, which discouraged food and beverage vendors and coffee bars favored by employees, so the firm provided elaborate food and beverage operations in its space. Today, the area has blossomed, with thousands of units of new housing, restaurants, health clubs, a food market, and other trendy businesses. As a result, the company is encouraging employees to sample nearby commercial offerings, reducing the need for on-site amenities. On or off site, though, excellent coffee is a must.

Even when extra conference rooms, congregation areas, telephone booths for private conversations, and other added amenities are taken into consideration, space use has compressed in high-rent markets. While some firms are fiddling with this formula—some by adding very small offices for partners in professional firms, for example—this space design does not show signs of reverting to the previous layout. At a focus group in Austin, one participant said that the office space per employee “used to be 250 square feet; now it is 170 square feet.” Another participant said, “I still use 225 square feet per person; individual space that one person occupies has been downsized, but the community spaces have been enlarged.” Let the debate continue.

Lastly, “plug and play” office space has received a lot of attention where space is readily available and fully equipped for flexible leasing. The product appeals to startup firms, but is also being used by established tech companies that need expansion space quickly. There are specific firms that specialize in this product, but other vendors and office space owners are finding this a lucrative venture.

Exhibit 4-13 U.S. Retail Property Total Returns



Sources: NCREIF Fund Index — Open-End Diversified Core Equity (ODCE); NAREIT Equity REIT Index.

*Returns as of June 30, 2016.

Retail

Real Capital Analytics reports a 23 percent decline in shopping sector transaction activity, to \$25 billion, through the first seven months of 2016. The sluggishness of the consumer recovery is one reason retail property has been only an average performer in recent years. Risks reported in the headlines (“the mall is dead” and “department stores are in a death spiral”) have not helped, either.

Concerns about retail continue to pop up in our annual *Emerging Trends* survey, which places the stores sector last among the major property types. On the investment side, retail came in dead last, even lower than last year. As for new development, its rating was rock-bottom.

However, feelings about retail are diverse, depending upon product and location. Urban/high street retail is the third-highest-ranked subsector, while neighborhood/community shopping centers and lifestyle/entertainment centers received moderate ratings. At the other end of the spectrum, power centers and regional malls were in the cellar.

Retail properties have historically been most appreciated by focused public REITs and foreign investors. Institutional investors are warier. The NCREIF universe still holds \$113 billion in retail assets, although the single largest component is in the super-regional or “fortress mall” sector. A number of pension

fund advisers and foreign funds have provided minority equity to these REITs, which manage the properties.

Some institutional investors with a more positive view of retail properties have devoted resources to understand and manage them. A number of these investors view high-quality retail as a defensive play and continue to add to their portfolios. The ability to pass costs through to tenants makes shopping centers much less capital intensive than office properties. Over cycles, they have tended to outperform. Optimists see consumer demand likely to grow, with improving consumer confidence. With some actual reduction in supply as weaker centers are removed from inventory, retail properties could have a positive outlook. Class A malls have proved to be strong performers. A real estate corporate board member observed that “the best of these malls are owned and operated by the giants of the industry. They will figure it out and they will get tenants that are also figuring it out.”

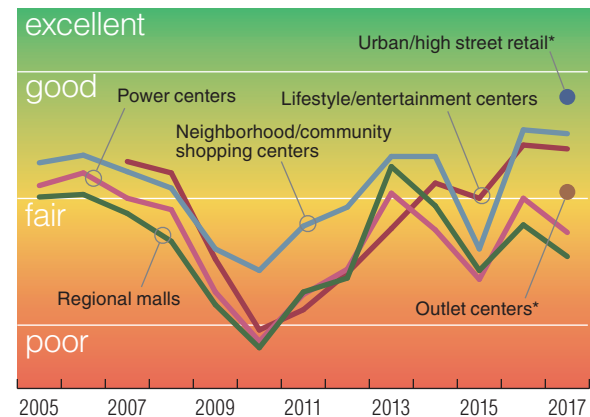
Based upon our survey of investors, this is a contrarian view. A real estate economist articulates the consensus that “we are going to see a record level of store closings as the internet continues to cannibalize retail.”

Investors are focusing on smaller centers, including lifestyle/entertainment, grocery-anchored, and even niche power centers. Lifestyle/entertainment centers are often part of mixed-use development. Given the strong food and beverage orientation of these lifestyle centers, one investor observed that “going out to dinner is a 90-minute vacation” for those with hectic schedules.

In the past decade, **high street retail** has come to prominence for institutional investors. Originally, this referred to the high fashion streets, such as Fifth Avenue, Madison Avenue, West 57th Street, Rodeo Drive, and a few others. In more recent years, the universe of high-profile streets has increased considerably to include such locations as SoHo and the Meat Packing District in New York, Beverly Drive and Melrose Avenue in Los Angeles, an expanded area around Union Square in San Francisco, and other locations across the United States. These properties are typically small, but are pricey on a per-square-foot basis. Investors have attempted to scale these acquisitions to create portfolios. Historically in the hands of private and family investors, these assets are increasingly owned by institutions and REITs. A developer of urban retail notes “more interest by both existing brick-and-mortar retailers and some relatively pure e-retailers looking at putting stores in the urban environment.” At an Idaho focus group, a participant observed, “I have never seen downtown Boise retail as healthy as it is right now.”

A consensus is emerging that **e-commerce** will decrease the overall demand for retail space, but will not come anywhere close

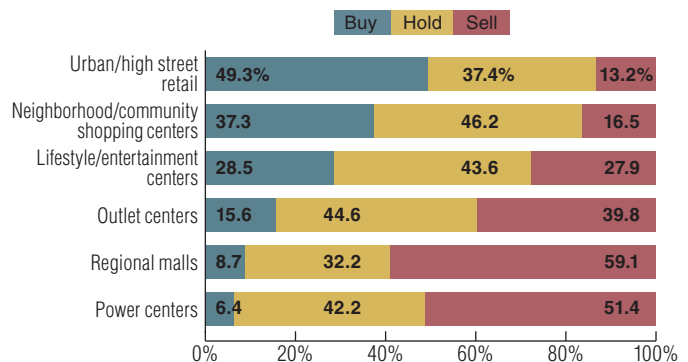
Exhibit 4-14 Retail Investment Prospect Trends



Source: *Emerging Trends in Real Estate* surveys.

*First year in survey.

Retail Buy/Hold/Sell Recommendations



Source: *Emerging Trends in Real Estate* 2017 survey.

Note: Based on U.S. respondents only.

to supplanting it. Research has shown that a consumer may touch the retailer at many points along the route to transaction, possibly researching a product online, experiencing it in-store, sharing with friends for input, and then possibly buying online later for delivery or for in-store “click and collect.” A developer observed that “the really smart and sophisticated retailers are doing whatever they can to maximize both online sales and in-store experience. Some retailers are getting very good at blending bricks and clicks.” Mall owners also understand this experiential aspect, reflected by a developer who observed that “most sales increases have come from food and beverage” at malls.

Institutional investors and major REITs have largely sold off their Class B or C malls. An investment manager observes that “there is no worse investment than a poor-quality mall.” Nevertheless, opportunistic retail investors do exist, buying at low cost. While

some intend to improve these centers, most are looking to repurpose property.

Grocery-anchored centers have long been popular for their relative stability and immunity to e-commerce. A well-located center might add a mini-anchor and fast-casual restaurants, as well as local services, increasing the traffic draw and the resultant cash flow. Some favor niche centers anchored by specialized grocers, which tend to achieve high sales volumes and traffic from affluent shoppers. A developer noted that “good grocery can be incorporated into everything. It is a great attraction.”

Power centers fell out of favor years ago. They are particularly vulnerable to e-commerce and unattractive in terms of customer experience. At a focus group in Austin, a participant said that “it is a lot harder to do big box.” At an Indiana focus group, a participant noted that “really big boxes are dead, most likely due to the e-tailer effect. They will be trying to retool.”

Many discount retailers remain quite viable. U.S. consumers strapped for cash shop primarily in such stores, and not primarily online. Clever developers are including the more successful discounters in lifestyle and grocery-anchored centers or in street frontage urban locations where they are seen during consumers’ daily travel.

Outlet centers have been quite successful in recent years, and are dominated by a few public REITs. However, in our subsector survey, they received low ratings for investment and development opportunity. Several analysts felt that this subsector was being oversupplied and is losing some of its luster.

Niche Sectors

Yield-seeking investors turn to alternative real estate investments generally overlooked by major players. These are often real estate sectors that have been dominated by private and family investors. As a result, buyers may find pricing that achieves superior risk-adjusted returns and an opportunity to provide a superior level of management. An investment manager stated that their “core fund is adding a lot of niche products, including medical office, self-storage, and trucking terminals.” Others mention data storage, student housing, senior living facilities, and manufactured housing. In addition, we have included discussions of mixed-use product and residential condominiums, which also appear to be niche strategies today.

Mixed-use product is the highest-rated product in the niche product survey. Typically, investors are referring to retail with

apartments and/or office in a vertical development when they refer to mixed use. While most recognize that such a development creates synergies between the included uses, most evaluate these investments by the strength of each of their components. Their infill urban location fits well with many investors’ strategies.

Private investment in **infrastructure** has long been discussed, but with surprisingly little activity thus far, compared with such investments made in Australia, the United Kingdom, and Europe. Most pension funds that have invested in the sector have had global experience, and have witnessed how it works elsewhere. Such investment matches pension funds’ long-term horizon, providing a better return than can be achieved through bonds, but with a cash flow stream that also provides an inflation hedge. An industry consultant noted that “infrastructure vehicles should be attractive to capital sources interested in long-term reliable returns.” However, one investor indicated that “infrastructure yields are too low” for his fund. One adviser opined that “it will be a while before infrastructure gets to the same place as real estate” in institutional portfolios.

Some of the investments most discussed include energy distribution, water systems, ports and airports, tollways, bridges and tunnels, urban transit, and high-speed intercity rail. There is a real policy conundrum in that most infrastructure investments have historically been made by the government. Resistance to paying higher taxes, however, has led to underinvestment in infrastructure throughout the United States. However, taxpayers are often unhappy about selling or leasing assets originally paid for with taxpayer money. It has been a difficult asset class for investment thus far, but should have a promising future.

Medical office buildings, particularly those associated with a major successful hospital, have been growing in popularity. Our subsector survey rated medical office quite high for existing and development product. Health care is one of the highest-growth areas of the U.S. economy, with job growth of nearly 19 percent since 2007, the last cyclical peak, compared with 4.4 percent growth in total employment. One portfolio adviser stated that “the Affordable Care Act has given the sector a boost.” It has encouraged the formation of major health care practices, helping improve tenant credit and facilitating professional management. Most investors are even comfortable with ground leases when those leases are with the associated hospital. An investment manager said, “It is another demographic play. We are doing a lot [more] medical office in the last year than we have in the last ten years.”

Data storage has been a lucrative sector for a few institutional investors, ranking third in our niche product survey. Demand for data servers that support an increasingly cloud-based system of data storage has been very strong. For facilities in prime locations relative to data cables, cash flow has been excellent. Data center REITs provide a point of entry for investors. A developer said, “I wish we had invested in those years ago, because no question right now they are incredibly important assets and are only going to grow as more people want to shop online and depend upon general logistics and efficiencies.” An institutional adviser, who has developed data centers in a joint venture with a REIT, said, “They have done really well, and they are expanding this program. Most are reuses of existing buildings in great locations. In the future, they will do more ground up.”

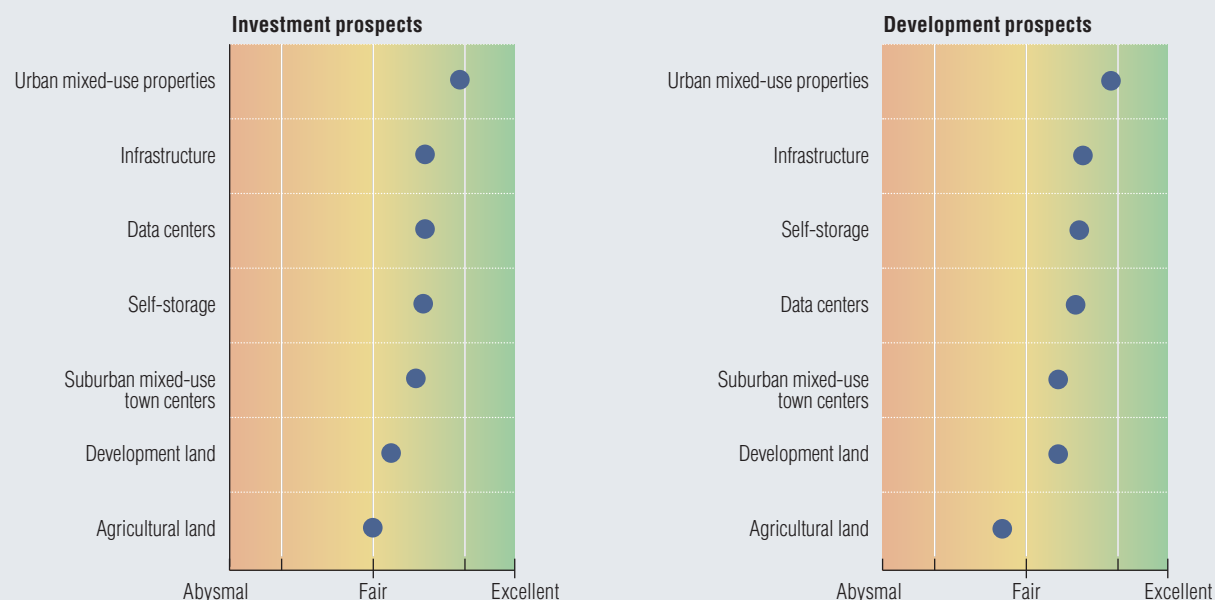
Self-storage has been a growing and popular sector over the past several years, ranking fourth in our niche product survey. Consumers require storage for stuff that they cannot accommodate at home. A pension fund adviser notes, “The boomers are aging and have already bought too much stuff, keeping the private storage industry busy.” Households moving or downsizing also drive demand for self-storage. In major markets, rental rates and occupancy are quite healthy. The self-storage REIT sector has been on a roll. An investment manager said, “Over 6 percent of our portfolio is in this sector.” Some investors feel that this sector has peaked in its pricing and expect restrained

returns in the future, however. A head of real estate investments for a life insurance company notes, “Cap rates keep dropping and there is not a lot more room for values to climb.”

Student housing has been a popular sector in recent years, and a number of REITs have been quite successful investing in this product. In our subsector survey, it received only a moderate rating for 2017. The typical product has been highly amenitized, targeting affluent parents concerned for the safety and comfort of their college-age children. Some investors believe this sector has largely played out, with sufficient supply to meet the demand from a small high-income market. However, most believe the volume of students at respected colleges and universities will remain strong for the foreseeable future. Another investment adviser said, “We are buyers of student housing. This is somewhat recession resistant, especially for properties not at the top of the pricing market.”

In our survey of residential property types, age-restricted **senior housing** is the top-rated subsector. People live longer, and are more affluent in their senior years. Growth accelerated during the 2000s as seniors born in the demographic boom years of the 1920s began to enter their 80s, the target threshold for senior living. Today, that wave is subsiding. However, those arguing in favor of the sector point to the large number of seniors living through their 90s, medical procedures that allow for a

Exhibit 4-15 Prospects for Niche and Multiuse Property Types in 2017



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on U.S. respondents only.

longer ambulatory lifestyle, and increasing affluence of seniors. A real estate economist noted that “the baby boom generation that led to the apartment boom in the 70s . . . is going to lead to a senior housing boom.” A fund manager indicated that “he does really like senior housing, especially independent living and assisted living, perhaps with a memory care wing.” He calls them “hotels without the volatility.”

Demand for senior living facilities tends to be strongest in metro markets with large and affluent populations. A particular challenge for operators is labor. An investment manager/adviser said that his “biggest worry with this sector is wage pressure.” Assisted living residences in particular require large staffs. While institutions typically invest in the real estate, which is leased to an operator, labor clearly provides some sector challenges.

On the other hand, few institutional investors find the skilled nursing sector attractive, given its extraordinarily complex operations and heavy governmental regulation.

Development of **residential condominiums** has come relatively late to this cycle. Typically, as an economy recovers, the rental market is in demand first, followed by for-sale product as potential buyers become more confident in the economy. During the current recovery, there has been evidence of demand for condos, particularly in the top gateway markets, where inventory of unsold units has seen historic lows and price escalation has been rapid. Unlike in past recoveries, however, supply response has been slow. Two factors are responsible for this: 1) banks and their regulators are reluctant to approve the risk of a large project; and 2) institutional investors view condo development as increasing capital at risk.

The housing market crash starting in 2008 was not kind to the sector. More recently, there are perceptions of overdevelopment of ultra-luxury condominiums in places like Manhattan. Early entrants into the condo market have generally achieved outsized returns, based upon early recovery land and construction costs and strong emerging demand in gateway markets. That opportunity seems to be past. One condominium marketing executive

referred to those early investors who plunged into a market with limited capital availability as “bungee jumpers.”

Costs are a particular issue for high-rise product, even in those metro areas with proven luxury markets. A condominium marketing executive limited this universe to Manhattan, San Francisco, Chicago, Miami, Honolulu, Toronto, and Vancouver. These high-end condos are facing resistance, particularly in Manhattan, where some developers are carving up large units for greater affordability. Where developers have produced units for \$2 million or less, for the “merely affluent” as a *New York Times* article suggests, absorption is quite rapid.

In some value-add and opportunity funds, condo development using equity and mezzanine debt or preferred equity financing has been attractive. Some investors note that if the for-sale market were to crash during construction, the project could convert to rentals until the market recovers, as was common during the last recession. If this were to occur, investors would be unlikely to achieve their return hurdles but would hopefully avoid a bloodbath.

Manufactured housing facilities have long been dominated by families and other private investors who provide land with infrastructure to accommodate manufactured homes. In strong urban locations, such properties can generate strong rental return, with relatively low operating costs. Management is often notoriously bad, so professionals can add considerable value.

This sector has only recently been recognized by institutional investors, and then only by a few. In many cases, these properties are in good locations, where the underlying land is quite valuable. These can be tricky for investors given that communities often view these properties as valuable sources of affordable housing. Some impose special rent controls or provide other protections. A life insurance company executive noted that “more capital is coming into it.” Nevertheless, in our survey of residential property types, it ranked toward the low end of the enthusiasm scale.

Summary

The remarkable diversity of U.S. real estate means that our markets are not only deep but also broad. From the largest investor to individual households looking to acquire property assets, there is something for everyone. Granularity is a positive feature and, as one Midwest residential developer put it, “It is best to stick with what you know.”

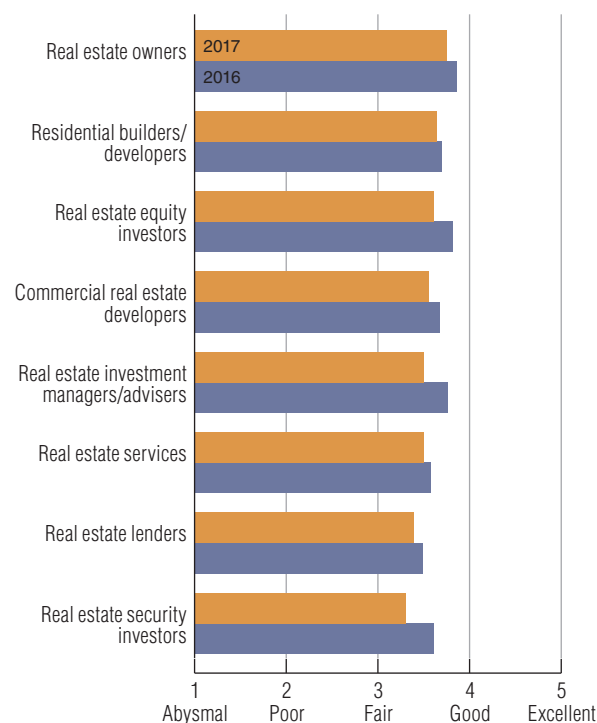
Emerging Trends in Canadian Real Estate

“Innovation is by far our biggest issue. We strive not only to lead—but also to attempt to remain far ahead of the competition.”

More Than Mixed Use, It's about Building Communities

“Creating a vibrant and welcoming environment for people to spend time in is what keeps them coming back and frames how they relate to it.”

Exhibit 5-1 Real Estate Business Prospects



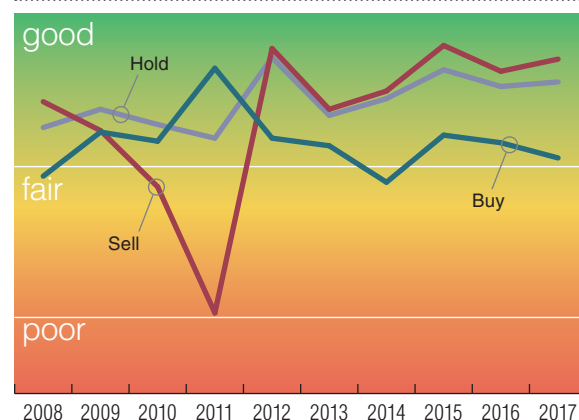
Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on Canadian respondents only.

From millennials eager to live where they work to downsizing baby boomers to new arrivals from other provinces or from around the world, Canada's urban populations are set to continue to grow—and their needs are evolving. Because of this, mixed-use projects combining residential, retail, and commercial components continue to thrive—and there's a growing consensus that developers must do better when designing public spaces. Developers have responded by continuing to rethink their approach to mixed-use projects: instead of focusing on building “stand-alone” mixed-use buildings, they're increasingly building mixed-use neighborhoods and communities that pack residential, retail, and commercial space into a dynamic whole. Most respondents noted that this type of “placemaking” is a reality that developers need to seriously consider.

Investments in transit infrastructure also are contributing to this evolution, as cities look to establish new areas of development

Exhibit 5-2 Emerging Trends Barometer 2017



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on Canadian investors only.

Exhibit 5-3 2017 Forecast Economic Indicators by City

	Real GDP growth	Total employment growth	Unemployment rate	Personal income per capita growth	Population growth	Total housing starts	Retail sales growth
Vancouver	3.3%	1.9%	5.4%	2.5%	1.7%	21,765	3.7%
Saskatoon	3.0%	0.8%	5.6%	1.1%	2.2%	1,878	2.2%
Winnipeg	2.9%	1.6%	5.2%	2.3%	1.3%	3,940	2.9%
Toronto	2.6%	1.7%	6.5%	2.5%	1.4%	36,800	3.1%
Halifax	2.4%	1.2%	6.0%	2.3%	1.1%	2,112	4.0%
Calgary	2.1%	0.5%	6.9%	1.1%	1.7%	9,014	1.8%
Montreal	2.1%	1.5%	7.9%	3.0%	1.0%	18,306	3.9%
Ottawa	2.1%	1.7%	6.0%	2.6%	1.1%	7,300	2.6%
Quebec City	2.1%	1.1%	5.2%	2.8%	0.9%	4,314	3.9%
Edmonton	1.8%	0.3%	6.6%	1.0%	1.6%	9,435	1.5%

Source: Conference Board of Canada, *Metropolitan Outlook 1: Economic Insights into 13 Canadian Metropolitan Economies*, Spring 2016.

and density around key transit hubs. This is enabling developers to build mixed-use communities both inside and outside the downtown core. And it's also giving homebuyers more of a choice between "live where you work" and "work where you live."

But as mixed use grows and evolves, developers are discovering that projects are becoming increasingly complex and creating new risks they haven't had to deal with before. To mitigate this, some developers are partnering with others to pool their respective specialized expertise. Some respondents have also observed more cooperation between former competitors, with one noting that partnerships and joint ventures have become more acceptable than ever before. "Our approach is to continue building relationships for potential alliances of this nature," one developer said.

Affordability on the Decline

"Lack of affordability will continue unless governments shorten the time to get product to market."

Housing affordability has become a major point of concern in Canada—and respondents said it won't let up. High prices in Vancouver and Toronto will continue to squeeze affordability, with both cities' mortgage-to-income ratios forecast to remain well above the Canadian average in 2017 (exhibit 5-5). Montreal will stay a distant third—still below the national average—with Winnipeg and Quebec City being the most affordable. On the whole, 2017 looks to see a pullback on double-digit, year-over-year housing price increases, with Toronto leading the way with under 5 percent growth this year (exhibit 5-4).

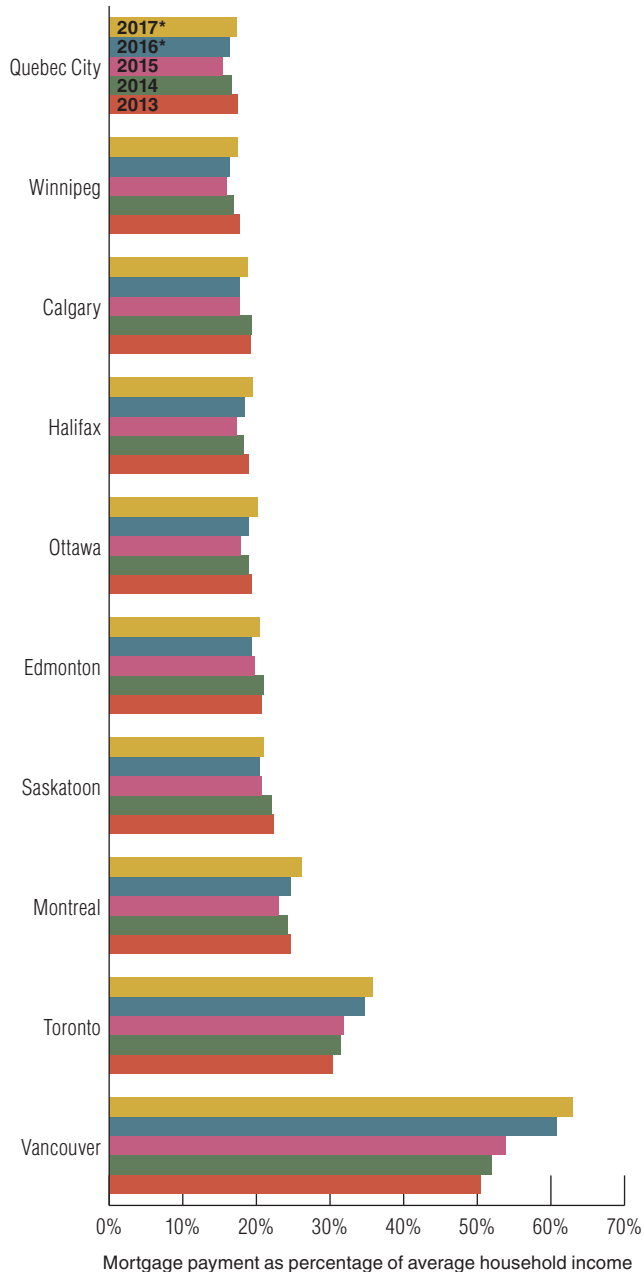
Exhibit 5-4 Housing Price Change Year over Year

	2016	2017 (Forecast)
Toronto	15.5%	4.6%
Vancouver	10.5%	−4.8%
Winnipeg	2.6%	1.5%
Montreal	2.6%	1.8%
Ottawa	1.1%	1.8%
Calgary	0.9%	−1.9%
Halifax	0.6%	3.1%
Quebec City	0.1%	2.9%
Edmonton	−1.1%	−1.2%
Saskatoon	−2.8%	−1.7%
Canada	10.6%	−0.9%

Source: TD Economics, *Regional Housing Report*, August 2016.

In the short term, Toronto's and Vancouver's markets are set to diverge slightly. Even before the additional property transfer tax on nonresidents, Vancouver had embarked on a modest correction that started in spring 2016. TD Economics reported that, by mid-2017, it anticipated a 10 percent decline in home prices, which was then expected to stabilize by the end of the year. In Toronto, it's business as usual—and barring a similar tax, foreign investors may see that city's market as increasingly attractive. But some interviewees have expressed concerns of a pullback by consumers, especially as the cost of single-family detached houses eclipses wage growth.

Exhibit 5-5 Housing Affordability



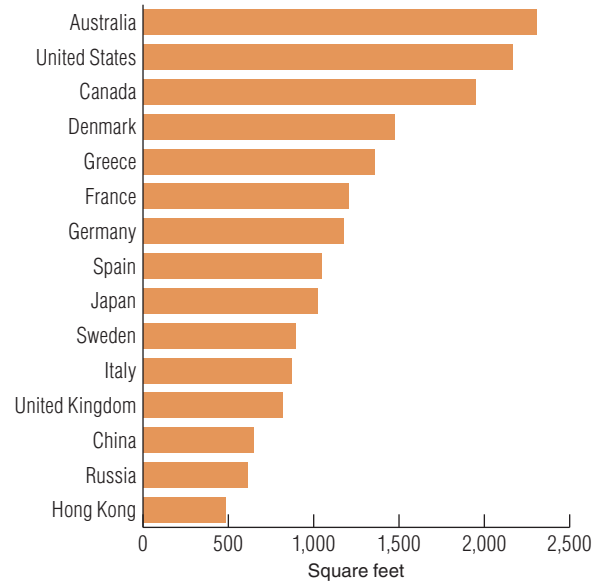
Source: TD Economics, *Regional Housing Report*, August 2016.

Note: Mortgage payment is based on the average home price, 25 percent downpayment, 25-year amortization, and five-year fixed posted rate.

*Forecast.

Significant increases in immigration over the next five years (exhibit 5-7) will continue to keep demand high and put even more pressure on affordability unless more supply is made available. Because of this, demand is anticipated to remain

Exhibit 5-6 Average Home Size, by Country



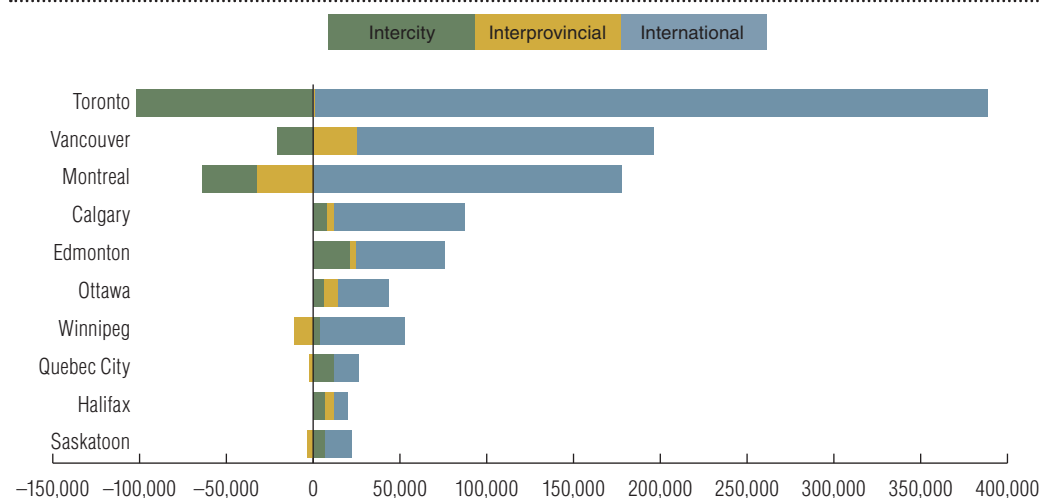
Sources: CommSec, Reserve Bank of Australia, United Nations, U.S. Census Bureau.

strong—but provides growth opportunities not just in Toronto and Vancouver but also across the rest of the country. As it stands, the average home size in Canada tops that of most other countries (exhibit 5-6), and with increased immigration on the horizon, those arriving in Canada may not have the same size expectations, creating demand for smaller units. As well, due to the high cost of moving, and the lack of affordable options for moving up, one interviewee said that existing homeowners are choosing to invest in renovations, putting further pressure on supply.

With no real factors reducing the demand for real estate in Toronto and Vancouver, developers and builders will continue to face supply-side issues. Many believe that provincial government land use policies—like greenbelt legislation and intensification requirements in Ontario and British Columbia—together with increasing time requirements to get local government approvals are factors holding back supply. “Government needs to increase the supply,” one interviewee noted. “If there was enough supply, there would be no affordability issue.” Another said that if government would release even 10 percent of the restricted land, it would solve a big part of the problem. As well, a common issue in nearly all regions was municipal red tape and lengthy approval processes, which are also limiting supply and driving up costs.

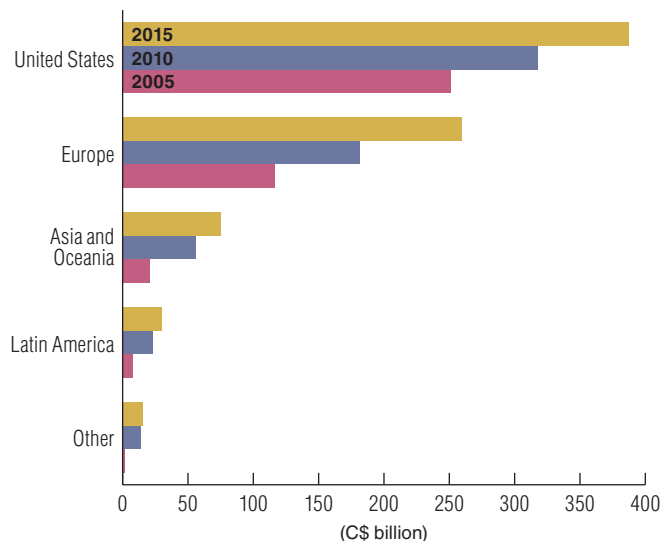
While interest rates have stayed low and respondents don't see any signs of a natural increase anytime soon, any jump could make housing even less affordable than it currently is and drive

Exhibit 5-7 Forecast Net Migration, 2015–2019



Source: Conference Board of Canada.

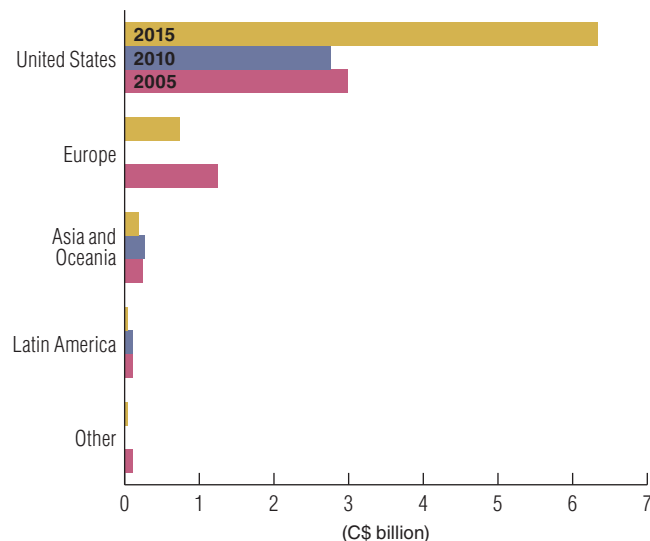
Exhibit 5-8 Foreign Direct Investment in Canada, All Industries



Source: Statistics Canada, CANSIM table 376-0052, retrieved August 5, 2016.

more significant changes in real estate markets. The sustained low interest rates may be lulling Canadians into a false sense of security, thus spurring them to increase their debt loads. In fact, if interest rates rose by only 1 percent, a significant number of Canadians may not be able to absorb the increase in their monthly payments. If this were to happen, the current affordability issue would be further compounded.

Exhibit 5-9 Foreign Direct Investment in Canada, Real Estate Rental and Leasing



Source: Statistics Canada, CANSIM table 376-0052, retrieved August 5, 2016.

Note: Includes firms under the North American Industry Classification System (NAICS) 53—real estate and rental and leasing.

Renting for the Long Term

With housing prices in Toronto and Vancouver out of reach for many prospective homebuyers, many are choosing to rent instead. Attitudes toward renting are shifting and people are choosing to rent longer—some even permanently, as they weigh the costs of homeownership against the benefits. As Toronto and Vancouver become more similar to world-class cities like

New York, Paris, and London, it is anticipated that renting will become the norm.

It is a trend that is sparking ongoing interest in purpose-built rental units—and raising questions about the size of units and the need for supporting infrastructure (e.g., schools, medical facilities, daycare, etc.) to accommodate millennials' inevitable move toward parenthood and boomers' downsizing. In fact, some older homeowners are opting to sell their homes and cash out, moving into high-end or luxury rental units and keeping the proceeds of the sale for spending.

Technology Disruptors Hold a Competitive Advantage

"We're getting to the point where if people don't recognize technologies are existing and, moreover, how to integrate them, opportunities are being missed."

Last year, the idea of disruptive technology was gaining traction among property developers and investors. Looking ahead, they now feel that real estate firms must take significant steps to adapt to customers' growing tech needs or risk falling behind. Luckily, some technological advances are getting easier—and cheaper—to implement.

Many of those surveyed spoke of how technology is changing expectations and how they interact with potential tenants. Nearly endless information is available thanks to the internet, so customers are more informed than ever before. They're doing extensive research online before buying. On the development side, firms are doing more 3-D computer conceptualizations in the planning stage, offering virtual tours to help potential buyers and reducing the need for physical showrooms. They're also harnessing the power of data to make better business and marketing decisions and improve financial reporting.

Technology and a changing workplace are creating new demands for office developers and owners. Respondents said tenants are continuing to move toward smaller, open-concept spaces because of "workplace 2.0" changes like office hoteling (reservation-based, unassigned seating), flexible hours, and telework. With more people working remotely thanks to advances in teleconferencing, much less need exists for big, traditional offices. These new workplace concepts are especially appealing to millennial workers and are transforming even the most traditional of office tenants, such as law firms, accounting firms, and banks. Owners of older buildings are finding it harder to compete with newer properties that have taken their future tenants' needs

into consideration; the way forward isn't necessarily clear, but upgrades and redevelopment don't come cheap.

Technology is also transforming the residential market. Buyers and renters alike are increasingly expecting more energy-efficient properties and amenities. As hydro costs rise and technology prices fall, the value propositions for things like LED lights, green roofs, and Energy Star appliances become far easier to make. New systems in waste management and energy conservation will help achieve net-zero-impact buildings, which are likely to become more popular as concerns over climate change continue. As well, new technologies have emerged to improve residential homes' air quality by reducing off-gassing from products like plastics and paints.

These new technologies are also making their way into building codes, though not everyone feels this is necessarily a positive. One respondent, for example, said that sometimes the new codes go too far, legislating features that provide "little to no actual benefit"—or benefits purchasers either don't understand or don't use.

Global Uncertainties Weigh on the Mind

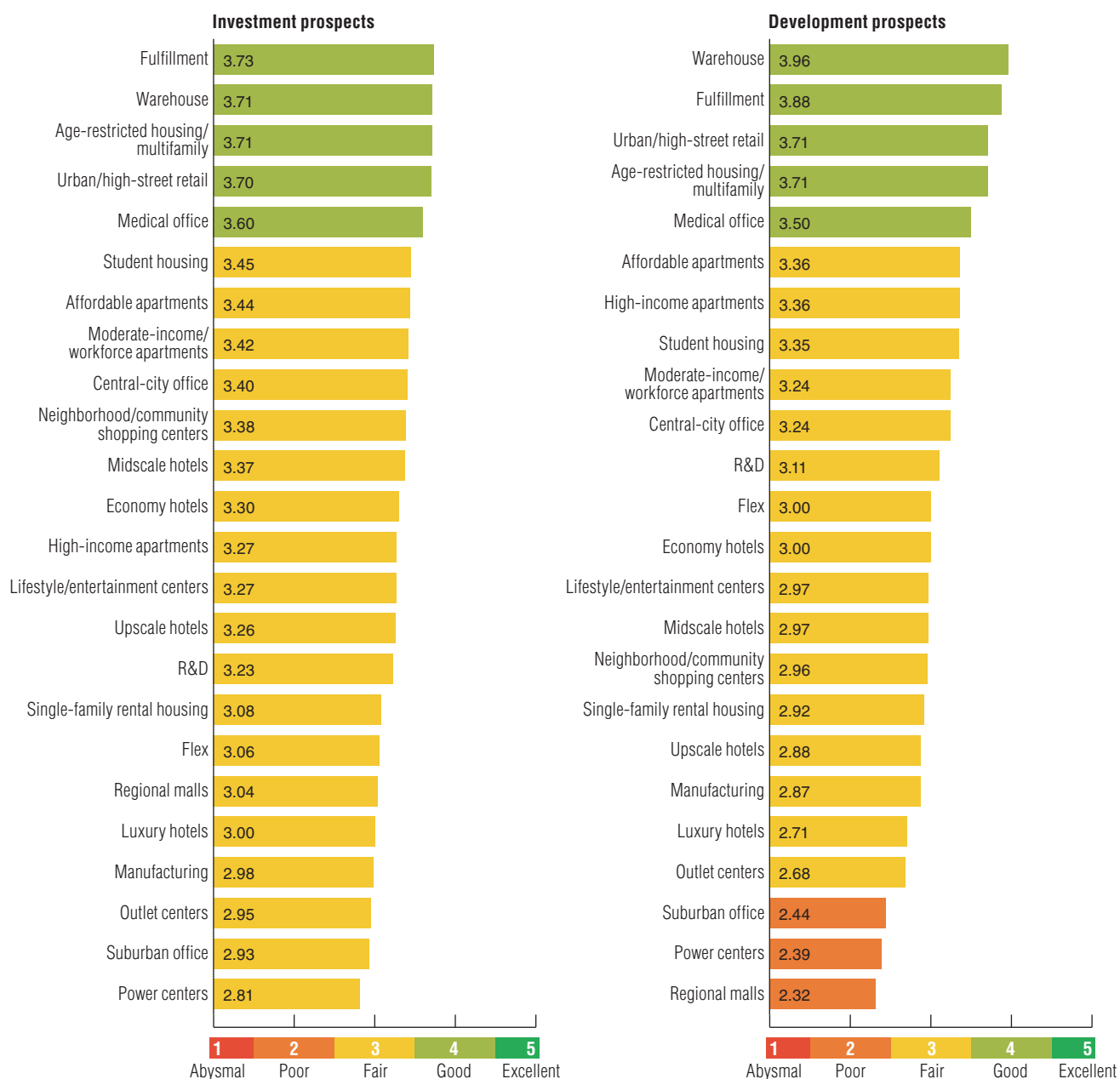
"Politics matter. Investment strategy will have to adapt and change in response to the volatile political situations in Europe and the United States."

Despite some regional differences, Canada's real estate market has delivered few surprises. While the domestic front has been stable, developers, investors, and property owners alike express concern over global political and economic uncertainties. Many worry about the potential impact of Brexit and the outcome of the U.S. election, while others also cite the global refugee crisis and Europe's economic and terrorism struggles as areas of concern. Observers' chief fear is that any one of these issues could have an outcome that sends markets and economies spinning, though whether Canada gets taken along for the ride isn't clear. Most respondents believe these global uncertainties, along with the low Canadian dollar, will continue feeding demand for Canadian real estate; for now, Canada is seen to be a steady, low-risk place for investors to put their money.

Ongoing Oil and Gas Woes

Slumping oil and gas prices continue to weigh on the economy, and they're hitting Alberta hard. The province has grappled with a recession for the second year in a row, with real gross domestic product (GDP) growth of -2.9 percent in 2015 and -1.1 percent in 2016, according to the Conference Board of Canada.

Exhibit 5-10 Prospects for Commercial/Multifamily Subsectors in 2017



Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on Canadian respondents only.

While some expect oil and gas prices to rebound from their lows, how high that rebound will be remains to be seen.

Calgary has seen its share of ups and downs over the years, and experience has taught real estate investors to wait and see

where the market goes before committing themselves to anything new. Oversupply of office space has not stopped some projects from being completed, but the Calgary market has hit the pause button. And while Edmonton isn't immune to the challenges of low oil prices, the impact on its real estate market

Exhibit 5-11 Investment Recommendations for Commercial/Multifamily Subsectors in 2017

	Buy (%)	Hold (%)	Sell (%)
Fulfillment centers	54.7	30.2	15.1
Medical office	52.7	33.3	14.0
Warehouse industrial	50.9	38.2	10.9
Moderate-income apartments	46.8	36.4	16.9
Affordable apartments	36.7	53.2	10.1
Central city office	31.3	43.4	25.3
Neighborhood/community shopping centers	30.3	55.3	14.5
Regional malls	26.3	46.1	27.6
Suburban office	21.4	37.8	40.8
High-income apartments	18.1	50.6	31.3
Economy hotels	16.7	46.7	36.7
R&D industrial	13.7	64.7	21.6
Power centers	9.3	41.3	49.3
Luxury hotels	6.5	45.2	48.4

Source: *Emerging Trends in Real Estate 2017* survey.

Note: Based on Canadian investors only.

has been softened thanks to the city's more diversified economy and significant investments in redeveloping its downtown core.

Waiting for Deals

"Canada will be a tough marketplace to grow in, so we'll need to be more agile."

While eagerness for investing in property abounds, there still isn't much to invest in. This was a significant trend in 2016, and continued demand—especially in Toronto and Vancouver—looks like it will continue to outstrip supply through 2017. Respondents said current players seem likely to hold onto their assets longer, with bigger players taking greater control of the marketplace. But respondents have seen newer players on the outside paying any price for land or projects just to get into the market. Some institutional investors are also looking to rebalance portfolios that are now disproportionately weighed to the West due to British Columbia price increases.

Access to capital is not seen by most respondents as a problem, with one stating that there's a "lineup of money looking to be placed." Overall, real estate is still seen as a good asset

class, and its historic returns will continue to make it an attractive investment opportunity for both local and foreign investors.

Economic Outlook

Canada's economic performance appears to have rebounded from a weak 2015. The country's economy continues to realign itself in the wake of falling oil and other commodity prices, as job losses in the natural resources sector have been offset by employment gains in manufacturing and construction. According to the Conference Board of Canada's *Metropolitan Outlook 1, Spring 2016*, national GDP is forecast to grow to 1.7 percent in 2016 and 2.3 percent in 2017—and stay above 2 percent through 2020.

Given the current national economic environment, residential investment is anticipated to slow as most markets pause to absorb abundant supply of single-family and multiresidential units. Housing starts nationally are forecast to fall to 184,500 units in 2016, down from 194,700 and below the 20-year average, according to the Conference Board of Canada. Housing affordability, weak income growth, and high consumer debt levels are all contributing to the dip in residential.

Property Type Outlook

While regional variations in the outlook for different property types exist, developers, investors, and property owners did strike some common notes in their assessment.

On the commercial front, the migration to upgraded Class A buildings is in full swing, though concerns exist about oversupply and what will be done with outdated properties. Industrial is generally expected to do well, driven by the growth of online shopping and a moderate uptick in the manufacturing sector. Condominiums—especially as part of mixed-use developments—are still seen as a growth opportunity across Canada. Rising prices for single-family residential in many markets have homebuyers considering condos and rentals. The major worry this year is retail, as property owners respond to the changing industry and become better partners to tenants in creating environments that encourage shoppers to increase their dwell time in stores and malls.

Office

The outlook for commercial real estate depends in large part on the market in question. As urban cores flourish in cities like Toronto, Vancouver, and Montreal, businesses have followed the talent, relocating to the latest Class A space in the core or near transit hubs. (Halifax bucks this trend, building its Class A space outside the core.) It's a different story elsewhere. In Calgary, the combination of the oil and gas downturn and oversupply is driving high vacancy rates, as the oil and gas sector slows. Edmonton, somewhat insulated from the oil patch woes thanks to major infrastructure spending and a diversified economy, is confronting the fact that ten years' worth of office supply is set to come on the market shortly. Ottawa, hit hard by government spending cuts in recent years, has seen its office vacancy rate reach 25 percent, an all-time record. Some property owners in these high-vacancy markets are offering lucrative incentives to prospective tenants to fill their space.

The appetite for new Class A properties is generally strong, but the situation is not without its challenges. While the popularity of Class A buildings creates opportunities for new development or redevelopment, builders must deal with the fact that more advanced offices drive up input costs. As well, as tenants move to newer buildings, owners of Class B buildings must evaluate their options and decide whether upgrading, redeveloping, or rebuilding makes economic sense.

Condominiums

Demand for condos remains robust in Toronto and Vancouver, driven by urban migration and domestic and foreign buyers seeking investment properties. But condominium activity is

Exhibit 5-12 Downtown Class A Office Space, Second Quarter 2016

	Space under construction (sq ft)	Vacancy rate
Toronto	3,555,358	7.3%
Calgary	2,361,753	15.5%
Montreal	1,102,200	9.2%
Vancouver	473,141	10.2%

Source: JLL, *Canada Office Market Overview*, Q2 2016.

expected to be more subdued across the rest of the country. Montreal continues to absorb oversupply in its condo market; Quebec City shows little interest in condominiums, preferring rentals. In Calgary, comparatively affordable house prices and land supply continue to dampen condominium growth in that market as buyers opt for single-family homes instead.

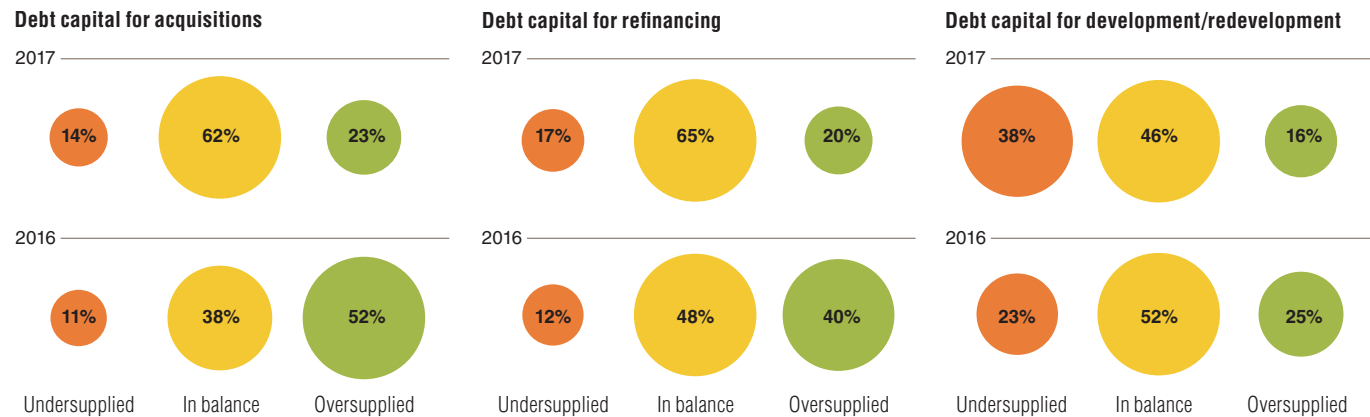
Looking ahead, concerns exist that rising condo prices in Toronto and Vancouver could keep prospective first-time buyers renting or living at home. One Toronto-based respondent said the city's a landlord's market, with condominiums continuing to be the city's "shadow rental market."

Single-Family Residential

"The industry isn't good at having politicians and the broader public understand how important the real estate industry is to the broader economy."

Respondents remain aware of widespread concerns over the lack of affordable housing, especially single-family homes where price increases are outpacing wage growth. In hot markets like Toronto and Vancouver, mortgage-to-income ratios are forecast to remain well above the Canadian average in 2017 (exhibit 5-5). In these high-priced markets, as supply of single-family residential units is constrained, an opportunity exists for the condominium and rental markets to reach those priced out of homeownership.

Alternatively, homebuyers may opt to move farther away from expensive markets: those in British Columbia put off by Vancouver's prices, for example, are looking farther up the Fraser Valley and even in the province's interior. According to respondents, certain government land use policies have made the housing supply less responsive to demand in larger urban centers, especially Toronto and Vancouver. For potential buyers unable to afford a house but not sold on condo living, there is an increased push for mid-density development and stacked townhouses, especially in infill projects in Toronto.

Exhibit 5-13 Real Estate Capital Market Balance Forecast, 2017 versus 2016

Source: *Emerging Trends in Real Estate* surveys.

Note: Based on Canadian respondents only.

What homebuyers are looking for may also be changing. In Calgary, real estate players have noticed that younger buyers in particular want quality rather than size, accepting smaller house footprints in exchange for higher-quality construction and finishes. In Montreal, interest in townhouses and multilevel houses is rising; recent projects may in fact be aimed at foreign buyers.

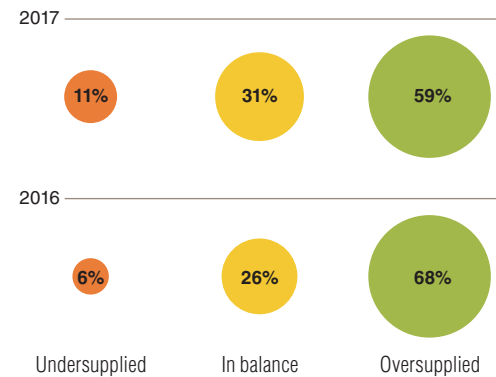
In Vancouver, the housing market has felt the first effect of the province's additional property transfer tax on foreign buyers. But over the long term, will the tax have the intended impact of stemming the influx of foreign investment and the soaring increase in house prices? That remains to be seen. Some believe that the measure will indeed curtail foreign activity while others feel that it will spark rising foreign investment in Toronto, Montreal, and, potentially, Calgary. Many respondents still predict that the tax will do little to stop wealthy buyers from investing when and where they please, especially if they are considering the property as a long-term investment. Dip or no, some observers have pointed out that Toronto's and Vancouver's prices are likely to remain high for the simple reason that there is not enough supply to meet demand—and not enough supply being released by municipalities.

Industrial

The outlook for industrial property is largely positive. The ongoing growth of online shopping is driving demand for fulfillment centers, as retailers clamor for distribution centers with the high ceilings they need for modern logistics. The resurgence of Canada's manufacturing industry, after a difficult period of consolidation and retrenchment, is also creating new demand. Respondents said that manufacturers are expected to invest

Exhibit 5-14 Real Estate Capital Market Balance Forecast, 2017 versus 2016

Equity capital for investing



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on Canadian respondents only.

in new facilities—or retrofit existing ones—as they upgrade machinery and equipment and adopt more energy-efficient, sustainable building technologies. The other factor contributing to the upbeat projections for industrial property is the fact that an abundance of lending and investment funds is available—and readily accessible—owing to pent-up demand in the sector.

Real Estate Investment Trusts

“As long as you believe that interest rates are going to stay low, buy quality REIT units for growth and safety.”

The outlook for real estate investment trusts (REITs) is expected to be positive, although we may continue to see a shift in business models toward organic growth, intensifying portfolios, and increasing involvement in development projects. In part, this reflects increasing maturity in the sector, as REITs focus on improving their bottom lines instead of simply adding market share. Respondents expect that capital rates will continue to compress due to the lack of alternative investments and the huge amount of capital looking for investments. It is anticipated that REITs will offer lower—but still superior, given low rates—yields, which will attract retiring investors keen to add steady, stable returns to their personal investment portfolios.

It has increasingly become, as one interviewee said, a “flight-to-quality market,” where investors will pay a premium for stability. The consensus among respondents is that there is a lot of demand for REIT equities but little product for REITs to buy with the equity. And competition is increasing for what is available to buy. In response, investors are looking for development and redevelopment opportunities. As REITs make the move from accretive acquisitions to development, one respondent said that they are likely to become riskier investments. In an attempt to mitigate this risk, REIT managers are partnering with industry experts and diversifying away from their specialty asset classes.

Purpose-Built Rentals

Purpose-built rental properties are viewed as a promising opportunity in many markets, particularly Toronto, Vancouver, Montreal, and Quebec City. More Canadians are turning to rent-

als either because of lifestyle choices or high housing prices. Rising unaffordability and lifestyle preferences are driving many millennials to forgo homeownership in favor of renting. And ongoing urban immigration also continues to create a need for affordable rental units. As well, many baby boomers are downsizing from houses to rentals, so we should see the market respond with larger luxury units targeted to their space expectations. This combination of demographic factors and affordability concerns means that a growing number of Canadians will continue to opt to become permanent renters.

These trends, coupled with an aging stock of rental housing across the country (exhibit 5-15), are persuading some developers and investors to start new, purpose-built rental properties, including multifamily complexes. Rising demand for rentals is likely to continue to drive rents higher until new supply comes on the market—particularly in cities like Toronto and Vancouver, where rental interest is high and vacancy rates are very low. Similar to last year, the question will be whether developers' interest in purpose-built rentals will result in sufficient supply. Those in Toronto and Vancouver already find it difficult to make the economics work, from the high value of land to development charges and property taxes. Elsewhere in Canada, Quebec City has been adding significant rental supply and is expected to do so for a few more years. Demand remains strong in Montreal, where a traditionally strong rental market exists. Halifax is focused on high-rise rental buildings catering to luxury-focused millennials and empty nesters. Ottawa has seen a jump in rental vacancies thanks to condominium oversupply. Calgary has also seen limited rental development outside its core.

Exhibit 5-15 Prime Multiresidential Rental Market, by Year of Construction (in Square Feet)

	Total	Before 1960	1960–1979	1980–1999	2000 or later
Quebec	811,512	330,250	299,680	122,039	59,543
Ontario	667,928	134,798	431,222	71,506	30,402
British Columbia	178,571	24,466	112,722	28,094	13,289
Alberta	136,611	7,966	84,646	25,407	18,592
Manitoba	64,561	13,715	35,427	7,784	7,664
Nova Scotia	54,235	7,559	19,996	13,572	13,108
Saskatchewan	35,969	4,334	20,590	7,234	3,811
New Brunswick	32,307	8,104	11,320	6,055	7,393
Prince Edward Island	6,771	1,565	1,037	2,287	1,882
Newfoundland/Labrador	5,858	1,224	2,711	1,217	706
Canada	1,996,883	534,004	1,020,013	285,990	156,876

Source: Canada Mortgage and Housing Corporation (CMHC), *Rental Market Survey*, October 2015. (Next release: November 2016.)

Retail

“We aim to cluster various best-in-class operators within proximity of one another—residents, office workers, and traditional retail—to create a unique urban environment that people from all over want to go and enjoy.”

The retail industry remains in flux, challenged by the ever-growing influence of online shopping, changing customer behaviors and expectations, and the influx of new players from the United States and elsewhere. Changing demographics are changing how people spend their money. Respondents are embracing the idea of destination retail, or “retail-tainment,” combining retail, restaurants, entertainment facilities, and hotels, which connects with the trend toward more community-based mixed-use planning and human-centered design. Developers hope to turn shopping into an experience because consumers, while much smarter now with e-commerce, still crave interaction.

Some property owners expressed concerns about backfilling surplus retail space and the impact on rent. One respondent said that the market should seize the opportunity to redevelop certain spaces and focus on service tenants like pharmacies, grocery stores, and personal care shops. Another said that they’re revamping spaces to welcome more experiential tenants like fitness centers, theaters, clubs, and restaurants. We’re also seeing a change in the relationship between retail landlords and their tenants: in place of the traditional, lease-driven relationship, they’re joining forces to improve their mutual fortunes. They are working together to create shopping spaces and experiences that online shopping can’t offer to increase consumers’ dwell time, and they’re sharing customer data and insights to sup-

port their respective events and promotions. And while most respondents are not quite sure how exactly self-driving cars will affect them, they have interesting potential in retail: one respondent is actively looking at “smart parking,” where self-driving cars will pick up shoppers, drop them off at the mall, and park themselves.

Markets to Watch in 2017

Vancouver

Vancouver is expected to lead all Canadian cities with 3.3 percent in GDP growth in 2017 (exhibit 5-3), propelled by strong employment gains (this report’s highest at 1.9 percent) and rousing housing starts (behind only Toronto). Most of these starts will be multifamily units as developers focus on building mixed-use developments and high-density condos.

It remains to be seen how the British Columbia government’s additional property transfer tax for foreign buyers will affect the Vancouver market over the long term. While intended to curtail foreign property investment, skeptics suggest the tax will do little to dissuade foreign buyers who can already afford the market’s sky-high prices. At the time of writing, the tax has been in place for only a few months, and respondents said it could take two or three quarters before there is enough evidence to measure or forecast its long-term effect. What’s more, Vancouver had begun a modest correction that started in early summer 2016 with sales volumes falling in some neighborhoods. Time will be needed to see if these measures have their intended effect.

Exhibit 5-16 Survey Respondents’ Views of Their Local Markets

		Poor	Fair	Good	Excellent		
	Average	Strength of local economy	Investor demand	Capital availability	Development/redevelopment opportunities	Public/private investment	Local development community
Toronto	4.07	4.20	4.26	4.22	3.89	3.91	3.94
Winnipeg	3.97	3.33	4.08	4.45	4.32	3.87	3.78
Vancouver	3.89	3.89	4.30	4.07	3.68	3.63	3.80
Ottawa	3.45	3.47	3.33	3.50	3.61	3.42	3.39
Saskatoon	3.36	2.86	3.45	3.55	3.76	3.24	3.30
Montreal	3.12	3.60	2.89	3.06	2.94	3.00	3.26
Calgary	3.10	2.09	2.51	3.30	3.49	3.68	3.51
Edmonton	2.83	2.38	2.60	2.88	2.88	3.17	3.08
Halifax	2.51	2.78	2.00	2.35	2.56	2.27	3.09

Source: *Emerging Trends in Real Estate 2017* survey.

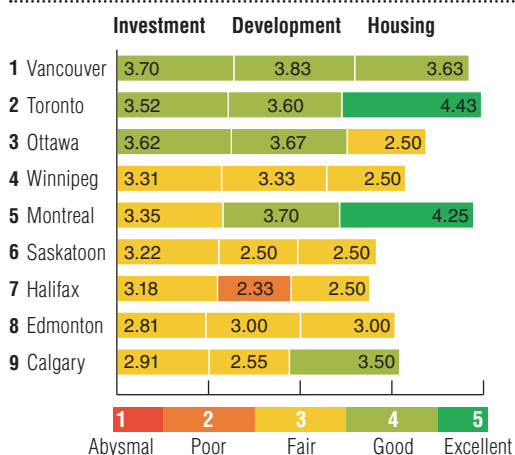
Note: Based on Canadian respondents only.

Exhibit 5-17 Employment, Job Vacancy, and Average Weekly Earnings Growth by Province, Change Year over Year

	Total employment change	Job vacancy change	Average change in weekly earnings
Ontario	0.9%	-19.7%	2.0%
British Columbia	0.8%	7.6%	1.2%
Quebec	0.8%	-19.2%	2.8%
New Brunswick	0.3%	26.7%	4.6%
Manitoba	0.0%	14.3%	1.0%
Nova Scotia	0.0%	-8.0%	0.2%
Newfoundland/Labrador	-0.1%	-32.0%	-1.3%
Saskatchewan	-1.1%	-13.9%	-0.2%
Prince Edward Island	-2.1%	-30.0%	0.8%
Alberta	-2.2%	-22.8%	-3.5%
Canada total	0.6%	-13.7%	0.9%

Source: Statistics Canada, June 2016.

Exhibit 5-18 Canada Markets to Watch: Overall Real Estate Prospects



Source: *Emerging Trends in Real Estate 2017* survey.

Millennials are driving up Vancouver's rental market, searching for new, higher-quality units near amenities and close to transit. Rental units are in incredibly short supply, with vacancy rates consistently around or below 1 percent for the past five years, according to Canada Mortgage and Housing Corporation. In another effort to curtail foreign capital and speculation, Vancouver has also proposed a vacancy tax—the first of its kind in Canada—which would impose a levy on homeowners who aren't living in their properties or renting them out.

Another emerging challenge is the lack of amenities—from stores to schools—in the downtown core. Some respondents

wonder what will happen as downtown-dwelling millennials want to start families: will they head to the suburbs or make do with a smaller footprint downtown? With single-family housing starts, there is very little new development in Vancouver itself, with new activity taking place up the Fraser Valley. At the same time, homeowners are increasingly opting to renovate instead of selling, which means that less property is coming on the market.

Toronto

Toronto's economy remains healthy and growing, with construction, transportation, warehousing, retail, wholesale, and manufacturing all contributing to this growth. According to the Conference Board of Canada, Toronto's construction sector growth achieved a 14-year high thanks to a 46 percent rise in housing starts—most of those multifamily units—with GDP forecast to remain steady at 2.6 percent in 2016 and 2017.

Optimism is the predominant attitude regarding the Toronto real estate market, though it is tempered by a measure of caution. The residential market generally remains strong, with solid sales volumes and rising prices, buoyed by a strong local economy, steady immigration, and low interest rates. Few if any foresee the situation reversing anytime soon, barring an unexpected hike in interest rates, an economic shock, or a sharp drop in immigration. The lack of supply and available land is seen as a key factor contributing to the market's rapidly rising house prices. Due to the high cost of moving, more homeowners are choosing to stay put and invest in renovations; one interviewee remarked that there have been record numbers of requests for permits to renovate existing homes. With no real factors reducing demand, developers and builders will continue to face supply-side issues.

Many respondents believe that government land use policies are a factor holding back supply. Some developers are also holding back on releasing new projects until all costs are fixed and to shorten the gap between sales and delivery; this will put more pressure on supply in the near future.

Toronto's condominium inventory has hit a ten-year low and demand remains strong, so respondents expect to see more high-rise multiresidential projects enter the pipeline in the years ahead. Mixed-use properties are highly popular as planners and developers work to match the city's population intensification with required amenities. The projects are also changing, as developers move from focusing on single mixed-use buildings to build mixed-use communities.

Toronto's office market has some respondents wary, concerned over the costs in developing or redeveloping properties with the technological amenities that tenants increasingly demand. Some express concerns about the supply yet to come on stream over the next few years and whether that will create pressures on prices. Others dismiss these worries, pointing to the steady reverse migration of businesses from the suburbs back to the core, driven by the need for smaller, smarter workplaces and locations close to coveted talent.

But retail is viewed as the most troubling segment of the market. Online commerce is putting enormous pressure on retailers and retail property owners alike. Value-focused retailers are expected to continue to do well, and super-regional malls and those focused on basics like groceries and pharmacies should remain strong. But the rest? It's a tough call; property owners are finding that they need to be aggressive to fill vacant space—and be creative to keep shoppers coming.

Montreal

Montreal's economy is poised to achieve its best growth in five years, with manufacturing, financial services, and business services all having a healthy outlook. The region's GDP is projected to stay at a stable 2 percent in 2016 and 2.1 percent in 2017, according to the Conference Board of Canada.

Despite high vacancy rates for office space—11 percent downtown and 17 percent in the suburbs as per the Conference Board of Canada—demand for Leadership in Energy and Environmental Development (LEED) certification and upgraded technology remains high. While many new offices have secured anchor tenants seeking modern floor plans in the financial core, that success masks the fact that it will take years to fill the pricey, empty space elsewhere in the building. Two factors are driving longer absorption times: lower-than-expected job creation

and delayed consolidation and rationalization decisions. For the latter, companies will either adopt empty Class A spaces or move to lower-cost locations in midtown in the coming years. As for the city's large stock of Class B and C buildings, these often face high redevelopment costs and lower demand.

Instead of older offices, investors and pension funds are focusing on redeveloping old hospitals, schools, and industrial properties into multiresidential rental properties and hotels. The residential rental conversion market is strong, thanks to demand from millennials and downsizing retirees. Hotel properties remain popular with investors and developers, and the sector is expected to get a boost from increased tourism thanks to the low Canadian dollar and the city's 375th anniversary celebrations in 2017.

Montreal continues to absorb the city's condo stock, and “pure” condominium plays have given way to mixed-use developments. Respondents told us that more mixed-use development is on the horizon, especially around transit hubs, and the trend is increasing cooperation between investors and developers. Montreal retail property, as elsewhere, is challenged by the changing nature of retail itself. Some developers are embracing the idea of destination retail, or “retail-tainment,” as a way to both attract shoppers and keep them buying: combining retail, restaurants, entertainment facilities, and hotels, developers hope to turn shopping into an experience that can lure shoppers away from their screens.

Ottawa

Ottawa's economy is expected to grow modestly in 2016 and beyond as the city recovers from government spending restraints that have resulted in the loss of thousands of public service jobs. GDP is projected to grow 1.6 percent in 2016 and 2.1 percent in 2017, according to the Conference Board of Canada. Respondents said they're focused on smart development and plan to intensify where communities already exist. As Ottawa's major transit rebuilding effort progresses over the next ten to 15 years, respondents anticipate that the city's real estate market will regain momentum, driven by the rise of high-density mixed-use developments focused around key transit hubs.

The city's office sector has been hit hard by federal and municipal downsizing, and vacancy rates hover around 25 percent—the highest in Ottawa's history. Both the public sector and private sector have been cutting costs and embracing “workplace 2.0” approaches that don't require the same level of space. With Class A space upgraded and still available, companies holding B and C buildings are resorting to major incentives to attract tenants.

Survey respondents said that Ottawa's retail sector is struggling and that the market is oversupplied with retail space. While the Rideau Centre has secured its position by focusing on high-end retail, retail vacancies in the rest of the East End are very high. This is in contrast to the West End, which is closer to Ottawa's high-tech sector and new government offices; there, space is in shorter supply and rents are rising.

The residential market is seeing little movement. Demand for new homes is down sharply since there aren't enough families interested in buying single-family homes. Ottawa housing starts have fallen for three straight years, and some developers are currently shelving their development plans for up to five years. Millennials and retiring boomers are seemingly looking for mixed-use developments, such as the project on the former site of the Lansdowne Park football stadium. Yet even there, developers have had to offer sizable incentives to bring people in. Many condo owners are turning to rentals, and this is further dampening the city's residential market. In some cases, rents for units in brand-new buildings are less expensive than traditional residential housing, leading would-be buyers to rent instead.

Quebec City

Quebec City should see improved economic growth this year on the strength of an improving manufacturing sector and the continued strength of its finance, insurance, and real estate sectors. The city's GDP is projected to grow 1.9 percent in 2016 and 2.1 percent in 2017, according to the Conference Board of Canada.

Nonresidential opportunities are still robust. Le Phare de Québec—a \$600 million, multitower skyscraper project—is projected to start in the next few years, and spending on renovations to the Place Ste.-Foy shopping center has topped \$110 million. As well, the Quebec City Jean Lesage International Airport has a \$277 million site expansion in the works, the largest redevelopment project in the history of Aéroport de Québec.

What's more, office redevelopment opportunities remain economically viable in this market, since the city is starved for upgraded properties that meet the needs of modern workplaces and employees. Hotel properties also remain attractive, buoyed by the city's strong tourism sector. The market for residential conversions of older office properties is also strong.

Demographic trends are changing the Quebec City market, as boomers liquidate assets and move into rental units to preserve their capital outside of real estate. Millennials also are keen to rent in order to preserve a degree of personal mobility and flexibility, opting for units close to transit and service-oriented

neighborhoods. Quebec City's rental construction has been going strong for the past five years and is expected to do so for the next five as well.

Saskatoon

Saskatoon's economy contracted last year, the first time since 2009, as oil, potash, and canola all saw price drops. While the economy is expected to stabilize in 2016, strong growth is forecast for 2017, with GDP projected to grow from 0.9 percent in 2016 to 3 percent in 2017, according to the Conference Board of Canada.

Local construction activity dropped sharply last year, and is expected to fall—though much more modestly—again this year. The decline is almost entirely the result of softness in the residential housing markets; projects developed during the boom years are coming on stream and simply adding to unsold inventory. But the residential sector's doldrums are balanced by ongoing solid performance in other sectors.

Winnipeg

Winnipeg's economy is expected to grow this year and beyond, driven primarily by growth in the manufacturing and local goods sectors. The region's GDP is projected to grow 2.3 percent in 2016 and 2.9 percent in 2017, according to the Conference Board of Canada.

Building activity should remain healthy over the short term, propelled mainly by nonresidential projects such as the \$200 million Outlet Collection Winnipeg Mall and the massive, \$400 million True North Square project and its four mixed-use towers. This should go some way to offsetting a cooling residential market, which had experienced significant growth for both single- and multifamily units in recent years.

Halifax

According to the Conference Board of Canada, the Halifax economy grew around 2 percent in 2015 on the strength of its manufacturing and construction sectors, offsetting declines in the local gas and utilities sectors. GDP is projected to grow 2.8 percent in 2016 and 2.4 percent in 2017.

Housing starts are on the rise again after three years of decline. But this growth is coming primarily from multiresidential rather than single-family homes. Multiresidential is up 74.5 percent thanks to a large number of new condo projects—with mixed-use condominium/residential rental properties performing particularly well. One interviewee said that the condo model is underdeveloped in Halifax, as purpose-built rentals present a

big opportunity in the short term. As well, the new \$169 million Halifax Convention Centre is set to open in 2017 and will hopefully attract visitors and tourism dollars to the region.

The outlook for Halifax's office sector isn't as bright, however. There has been movement to Class A buildings outside the core; while tenants seek more technology-enabled workspaces, manageable commutes, and parking, companies are taking advantage of provincial payroll rebate programs in the financial services, IT, and defense and security sectors. This outward flow of tenants has left the downtown core "hollowed out," with many older, obsolete buildings in need of redevelopment—if they're not simply torn down to make way for new development. One respondent said that "office is oversupplied and under-demolished," while another noted that "office is not on the radar" as there isn't the infrastructure and economies of scale to make it work. One trend is the fact that "residential is office," with an increasing number of remote workers changing how developers build new residential spaces.

The retail market is cheered by the news of a retail giant returning to the area in 2017, but the overall outlook is mixed. Some Halifax shopping centers are refurbishing, but many vacant retail spaces still sit unsold and empty.

Edmonton

Edmonton's GDP is expected to contract slightly in 2016, as low oil prices contribute to slower activity in a number of sectors. The local real estate market has softened as a result, but the city still remains stronger than other Alberta markets; infrastructure spending and the redevelopment of the downtown core have helped mitigate the impact.

With ten years' worth of office space coming onto the Edmonton market in the next few years, those involved in the commercial sector expect significant change. The new Class A space downtown may prove to be less expensive than suburban offices, and respondents anticipate that companies will leave their Class B or C premises for upgraded space in the core. A portion of older B and C stock is likely to be redeveloped into residential, as owners look to innovate in order to respond to a shifting market. Edmonton's downtown rejuvenation is creating the kind of urban core community that could attract millennials and others eager to live close to work, shops, and cultural facilities.

Retail properties are performing surprisingly well, considering the downturn in the oil patch. One respondent said that strip malls are still looking positive, and landlords report that tenants are signing long-term leases, suggesting an optimistic outlook.

Relative to other markets in Alberta, Edmonton's resale housing market is solid. But while housing remains affordable, respondents note that housing starts are expected to slow as homebuilders are backing off from new development until the market can absorb excess inventories.

It remains to be seen exactly how the real estate markets will be affected by the Fort McMurray wildfires outside Edmonton earlier in 2016. So far, respondents said that the impact has been unexpectedly moderate, and residential prices have remained relatively stable rather than dropping or rising sharply.

Calgary

The sharp drop in oil prices pushed Calgary's economy into recession last year, and further contraction is expected this year. GDP growth in 2017 is forecast at 2.1 percent, with less than 1 percent employment growth.

Despite this, owners are not in any hurry to sell. Calgary's real estate market has seen booms and busts before, so respondents believe that developers and investors aren't in a hurry to sell existing assets or exit the market. As national banks pull back on their investment in the region, regional banks familiar with Alberta's market understand the opportunities and are getting more involved.

The office market faces oversupply, as new space came onto the market just as the energy sector was cutting staff and costs and after some large companies moved from the downtown core to new campuses at the city's outskirts. Respondents reported downtown office vacancy rates to be around 20 percent, though that doesn't factor in "ghost vacancies"—empty space that is still being paid for. Leasing transactions have been largely completed by smaller organizations focused on lower-cost opportunities. In the face of a difficult market, some respondents said that property owners are offering reduced occupancy costs to help fill empty space, and some companies are indeed moving downtown to lock in prime Class A office space at reasonable rates. The abundance of available space also serves as a disincentive to redevelopment of Class B or C buildings. With industrial property, respondents are seeing a lot of expansion around the airport, including warehousing and hotel developments.

Calgary's residential market has remained stable from last year, but some homebuilders are concerned about sharply rising inventories of housing and apartment stock. On the other hand, one respondent noted that while property values are down, building permits are up. Another respondent said that while homes priced between \$400,000 and \$450,000 continue to move,

those priced above that range are seeing little activity—although one developer reported brisk business building luxury homes.

Calgarians continue to resist condominium living, as comparatively affordable house prices attract prospective buyers to suburban residential homes. But signs exist that this attitude may be changing. Millennials in particular are prioritizing value, quality, and maintenance-free living over square footage and yard sizes—a shift that is driving interest in smaller residential properties and upscale townhouses.

Expected Best Bets for 2017

Given the state of the markets across Canada, where should developers and investors focus their attention? Our survey and conversations suggest that the most promising moves can be made in the following areas.

Industrial Property

In the current market, industrial bets are widely seen as the wisest as the growth of online shopping creates more and more need for distribution and logistics hubs. While some worry it's tough to find property suitable for development, others point out that it's getting harder than ever to squeeze value out of office and residential developments.

Purpose-Built Multifamily Rentals

With rentals gaining in popularity thanks to rising house prices and demographic shifts, coupled with aging housing stock across the country, the market for purpose-built, multifamily rentals is better than it has been in years. Our survey shows that developers and investors increasingly sense the opportunity and are keen to get new rental projects going, provided the economics work.

Urban Mixed-Use Developments

As millennials and boomers alike flock to urban cores in search of a vibrant lifestyle, convenience, and proximity to work, respondents believe that the market for mixed-use properties combining residential, retail, offices, and more is a solid play. Increasingly, developers will move away from viewing projects as one-offs independent of their surroundings, in favor of building complete neighborhoods.

Senior Housing/Retirement Homes

A number of respondents, sensitive to the potential in an aging yet wealthy boomer population, believe investing in retirement homes and other senior housing will be a growth opportunity over the long term. Whether they can do so at the scale needed to deliver both care and desired profits remains to be seen.

Note: Additional market-specific data are available in the online *Emerging Trends in Real Estate® 2017* at uli.org/et17 or www.pwc.com/us/etre.

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