CBRE RESEARCH

2018 REAL ESTATE MARKET OUTLOOK

United States

CBRE

CONTENTS

UNITED STATES

ECONOMIC OVERVIEW / MACRO OUTLOOK

As a baseline, we expect moderate economic growth with slowing employment gains for 2018, and an economic slowdown in 2019. After the first year of Donald Trump's presidency, the range of possible economic outcomes has widened. Proposed policy changes represent a mix of additional boost and drag potential: A well-considered infrastructure spending bill or effective tax reform could raise GDP by 50 to 75 basis points (bps) annually, while cutting immigration by half could lower it by the same. The pending tax bill, which at the time of this writing appears likely to become law, could be positive for commercial real estate by either maintaining the status quo (1031x and the ability to deduct commercial mortgage interest) or stimulating occupier demand through lower corporate taxes. Short term, we are optimistic for the U.S. economy, but less so than last year.

Key stat: 2.2% average annualized GDP growth since Q3 2009

OFFICE

U.S. office market growth should continue in 2018, but at a slower pace, due to higher completions and the tight labor market's impact on tenant demand. Older buildings lacking the amenities preferred by today's workforce and the infrastructure to handle evolving technologies could struggle, particularly in markets where large volumes of high-quality product are being delivered. Meanwhile, suburban submarkets that offer a range of housing choices and urban amenities—including retail and restaurant options, public transit and walkability—are well positioned to capture demand from the maturing millennials.

Key Stat: 32 million sq. ft. of positive net absorption is expected in 2018

CAPITAL MARKETS

The next three years will likely see cap rates flat at best or rising, which we expect will outstrip property income growth. The economy's performance over the period will determine whether commercial real estate values continue to rise mildly, remain relatively flat or decline mildly or moderately. Investors should not count on appreciation returns over the period; rather, steady income returns should provide a solid basis for investment strategy as investors wait out the asset value fluctuations. By market, cap rates and asset prices may vary substantially.

Key stat: U.S. cap rates have compressed by 5 to 20 bps over the past year (Q3 2017)

OCCUPIER

Labor remains the primary challenge facing corporations. Even as they lower their space requirements, many occupiers are reinventing or adapting their workplace standards to meet employee demand for amenity-focused, flexible, technology-driven work environments. Activity-based workplace design is a popular approach to achieving greater space efficiency without impacting functionality. Agility is also a concern, and occupiers are showing clear interest in flexible-serviced agreements and shorter-term offerings.

Key stat: Occupiers continue to pursue space efficiency, reinvesting savings into workplace enhancements that will attract and retain employees

UNITED STATES

INDUSTRIAL & LOGISTICS

Although we are well along in the economic cycle, in the e-commerce/omnichannel cycle we are not, so demand for high-quality, well-located industrial real estate should not wane anytime soon. In most markets, a lack of quality space options is challenging those seeking to expand their supply chains. Record-level rents are a concern, but the compromises tenants must make on location decisions, which can affect supply chain costs profoundly, are the real issue. As location is paramount, rising rents are not expected to curb demand as long as users continue to find options. Fortunately, supply growth has begun to increase, which should lower the risk of short supply suppressing demand.

Key stat: For the first time, industrial real estate is global institutional investors' most preferred asset class—the top choice for more than a third of respondents in CBRE's most recent survey of global investors

HOTEL

Forecasts for continued U.S. economic expansion portend a favorable year ahead for the U.S. lodging industry, with forecasts of income and employment growth—coupled with slowing supply growth—promising increased demand for hotels. Prospects for the sector in 2018 will depend largely on local market fundamentals and property-specific demand mix. With household income and balance sheets strengthening across several demographic strata, the dominant hotel guest profile is being reshaped from one of business to one of leisure. Over the medium term, profitable hotel investment opportunities will generally favor properties that cater largely to leisure travelers. A few important city markets must contend with elevated risk from exposure to fluctuations in international travel.

Key stat: Equal growth rates are forecast for hotel demand and supply in 2018—Demand 2.0% (LRA 2.0%); Supply 2.0% (LRA 1.9%)

RETAIL

Changing demographics, consumer expectations and omnichannel retailing will continue to reshape retail and its real estate environment in 2018. The consumer trend toward off-price and discount retail will continue, with mid-range retailers seeking new ways to limit share losses to lower-priced players. A growing performance gap between prime retail assets and others will create opportunities for investors to capture assets with medium- and long-term growth potential at lower prices. Across retail segments, landlords and retailers will strike up new partnerships to drive traffic and sales. Non-gateway markets should see solid rent growth over the next five years, with urban core redevelopment, a rise in suburban mixed-use projects and strong employment and population growth making these markets especially attractive. Major gateway markets are expected to see rents grow more moderately.

Key stat: Annual rent growth of 1.9% expected for neighborhood, community and strip centers in 2018

MULTIFAMILY

Developers are poised to register the second-highest annual completions count of this cycle in 2018, down by 9.2% from 2017's cycle peak. Because apartment starts began to slow in 2017, the multifamily market will get a reprieve from new supply by late 2018 and throughout 2019. As of December 2017, nearly a quarter of all units under construction in U.S. markets are in urban cores. Urban core multifamily should perform well over the long term; for the short term, market statistics indicate that the best development opportunities are in the suburbs.

Key Stat: 22.6% of the multifamily units under construction today are in urban cores—the result of a 20-year trend that began in 1997 at just 7.6%

UNITED STATES

DATA CENTERS

The U.S. wholesale data center market continues to thrive, with sustained record-setting absorption levels for the past three years. Our outlook for data center demand remains bullish, fueled by ever-increasing data consumption, storage, compute power and the rapid evolution of technology—from self-driving vehicles, to networked homes, to advancements in mobile, interconnectivity and content delivery. Transformation and flexibility are the key themes in the multi-tenant data center space in 2018.

Key Stat: Across the primary data center markets tracked by CBRE, nearly 300 megawatts are scheduled for delivery in 2018

MEDICAL OFFICE

The direction of health care policy and payment mechanisms may remain uncertain, but rapid growth in the older population will remain a significant tailwind for medical-office demand in the years ahead. This will be particularly important in smaller, slower-growth markets where "eds and meds" are likely to be the primary growth driver over the next decade. The bigger risk may be from large health care systems continuing to acquire smaller physician groups and solo practices, potentially dampening demand for smaller medical office buildings and condos. Employment trends reflect the movement of health care services into lower-cost locations to reduce costs and to improve accessibility. Investment trends reflect strong medical-office market fundamentals and a broadening pool of interested investors.

Key Stat: An aging U.S. population will continue to fuel demand for medical office space

LIFE SCIENCES

The greater health care needs of an aging population and quickening advancement in software and computing power have prompted strong biotech employment growth, with demand surges in most major markets and double-digit rent growth in some. But with the unsustainable rise in health care costs, the industry is under pressure to identify new, more effective, less costly solutions. The sector's vibrancy in any given market is largely a function of the depth and caliber of the local scientific talent pool, and of the market's access to capital. Fundamentals are strong, but growing supply in the hottest markets should be closely monitored, as should the flow of venture capital, which recently plateaued.

Key Stat: Approximately 25% of all NIH funding goes to California and Massachusetts, contributing to the premier status of lab centers in Cambridge and San Francisco

SENIORS HOUSING

The seniors housing market improved modestly in 2017 and is set to improve further in 2018, largely due to lower construction levels. For the most part, the traditional segments of seniors housing—independent living, assisted living, memory care and nursing care—are not yet benefiting from baby boomer demand. However, the active adult segment will play an increasing and exciting role in the seniors housing industry in the coming years, as seniors housing continues to evolve. Property-level operating costs are investors' primary concern, and investor appetite for this type of property is strong.

Key Stat: CBRE's survey of investors revealed that 60% want to increase their exposure to seniors housing next year, with independent living the top-ranked segment

SPENCER G. LEVY
Head of Research & Senior Economic Advisor, Americas

CBRE Research

Despite continued economic growth, the outlook for commercial real estate in 2018 is cloudy as the cycle enters its late stages, with policy uncertainty—particularly regarding corporate tax reform and the direction of interest rates—looming large. In times like these, "agility" is more important than ever for investors and occupiers.

RETAIL: AGILE BY MARKET

Retail's biggest disruptor isn't e-commerce; it is demographics. Most big-box retailer closings have occurred in secondary markets, some of which have seen declines in both population and wealth. While high-density markets have not been immune to retail disruption, they have been better able to re-tenant and evolve. Technology has made retail easier, cheaper and faster, but has not changed how people like to make shopping decisions in-store. Take full advantage of the current capital markets weakness in retail and buy in areas with strong demographics.

INDUSTRIAL: AGILE BY ASSET TYPE

Big-box warehouses are in their golden era, from tenant and capital demand perspectives. The good news is that all megatrends point to this continuing, but it has gotten to be very expensive to build or buy big-box. The better news is that the golden era of industrial is now expanding into smaller, last-mile facilities near high-density urban centers, and this opportunity is only now garnering institutional attention. Institutional-grade industrial real estate doesn't have to be big-box anymore. It can be a strategically located box and, with omnichannnel, it may not be "industrial" at all, but a hybrid retail/industrial facility.

OFFICE, MULTIFAMILY: AGILE BY CAPITAL STRUCTURE

The best-performing markets of the current expansion include some that can be highly volatile in a downturn, such as Austin, Boston and San Francisco. But don't panic in the event of a market pullback. Rather, make your capital structure bulletproof. This includes extending your existing debt to five years or more so you're not subject to a liquidity crunch. It also involves active communication with your equity partners about what may be required during the downturn, including spending more money. Given the historic cyclicality of our industry, the best time to spend is during a downturn. Don't pull back on spending and don't jump the gun on selling in these great and dynamic markets. Create an agile debt and equity capital stack to best position your assets.

OCCUPIER: AGILE BY PORTFOLIO FLEXIBILITY

Large occupiers need to think about agility in both individual-market and portfolio terms, including the length of leases, options to expand or contract space, and the availability of talent. Double down on commercial real estate in those submarkets where you expect to attract, retain and create pools of talent for your business. The current labor shortage in the U.S. is only going to get worse. The very low national unemployment rate is 50% lower in many of the high-skill trades. While agility protects your downside risk/cost overall, don't put all your eggs in the "save money" basket. Rather, put many of your scarce resources into the "make money" basket of markets with deep talent pools.

Agility is the key in markets with unusual uncertainty.

ECONOMY

Despite all the noise from Washington, our forecast hasn't changed significantly from a year ago. We still expect moderate economic growth with slowing employment gains in 2018, and an economic slowdown in 2019 brought on by minor supply/demand imbalances throughout the economy. Our alternative economic scenarios are particularly relevant at present, given the wider range of possible economic outcomes.[1] Below are several factors that could lead to greater or lesser economic growth in 2018.

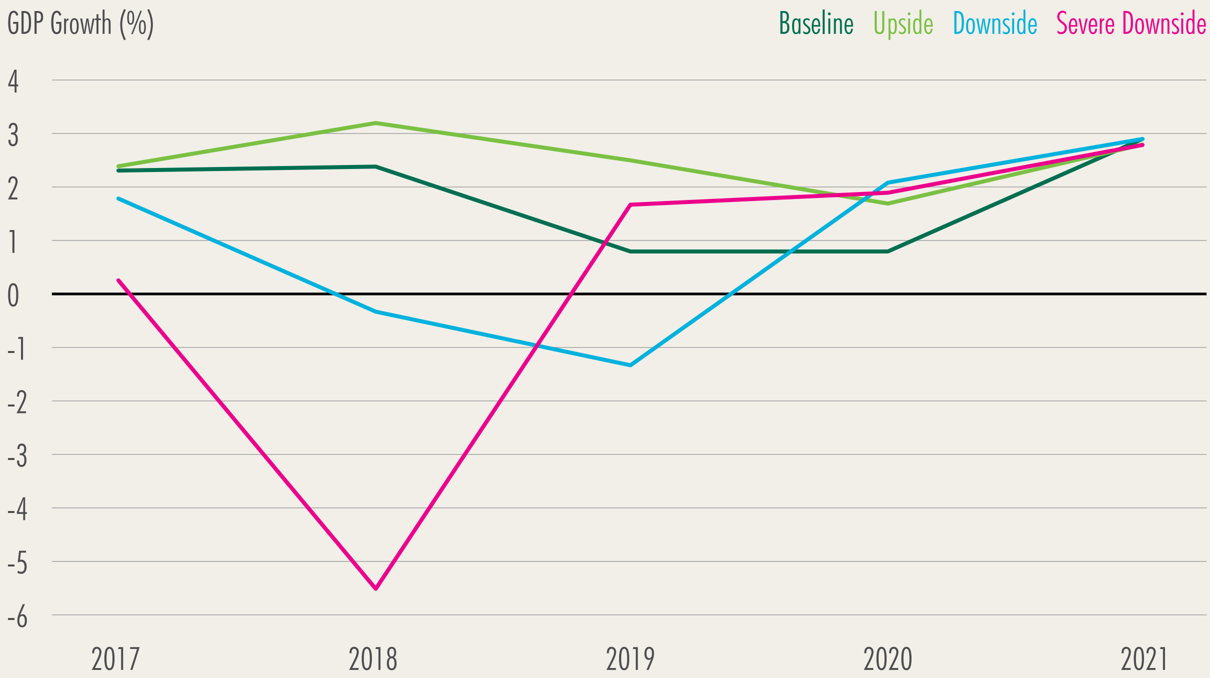
POTENTIAL GROWTH: TAX REFORM, INFRASTRUCTURE, CAPITAL SPENDING

Corporate tax reform, which appears likely to be enacted, could stimulate the economy overall, but not necessarily in 2018. A lot depends on how corporations, which are the primary beneficiaries of the current bill, spend the money from tax savings and tax repatriation. Infrastructure policy is more likely to produce significant growth in the near term. It has been several decades since the country upgraded and replaced its aging infrastructure at a pace sufficient to spur economic growth. If Congress and the president were to craft an infrastructure spending bill that is well-considered—unlike the rushed transportation bill passed by Congress during the 2008 financial crisis—it could potentially raise GDP growth by 50 to 75 bps annually.

Businesses, looking to compensate for needs unmet by the labor pool in this tight job market, may need to invest more on capital assets than they otherwise might have. A possible benefit might be increased productivity that boosts economic activity and extends the current expansion.

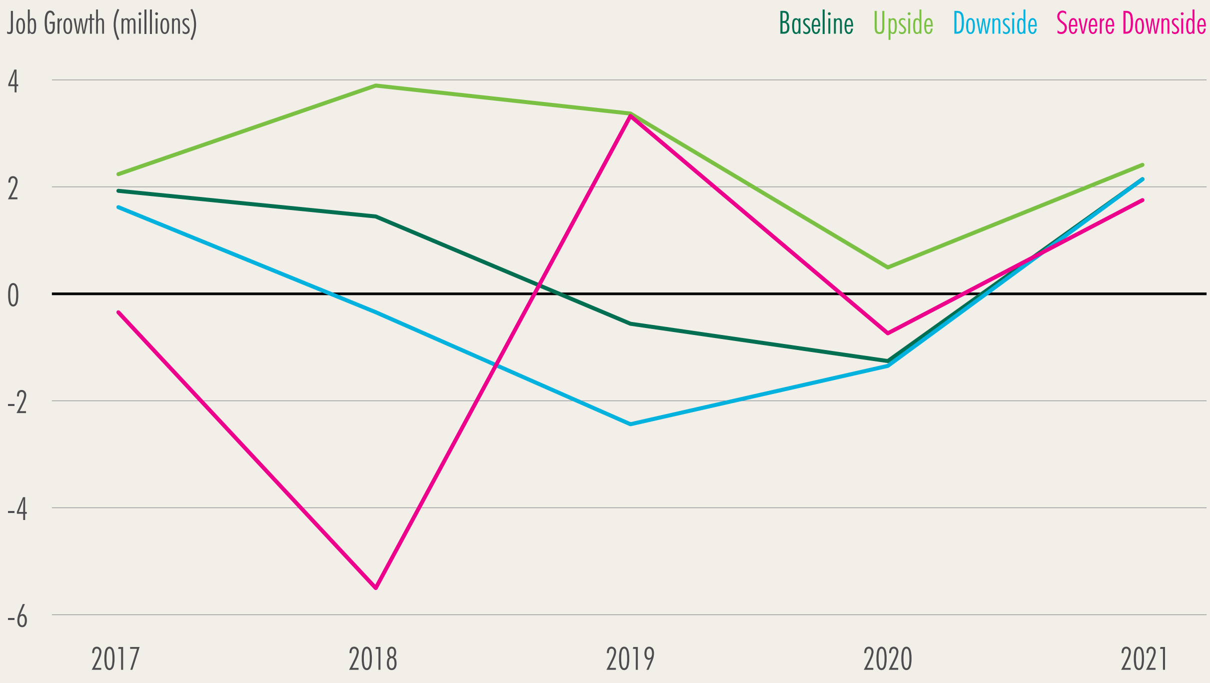
[1]See our *Insights* articles for more detail.

FIGURE 1: GDP GROWTH BY FORECAST SCENARIO



Source: CBRE Econometric Advisors, Q3 2017.

FIGURE 2: JOB GROWTH BY FORECAST SCENARIO



Source: CBRE Econometric Advisors, Q3 2017.

RISKS: TRADE POLICY AND IMMIGRATION

Trade and immigration policy have remained significant risks to the economy throughout the past year. The president raised tariffs on Canadian lumber just as the housing market was ready to take off, making the already challenging problem of building lower-cost units even more difficult. President Trump has also threatened to pull out of NAFTA and the Korean Free Trade Agreement, which could have a significant negative impact on the U.S. economy. Instead of broad multilateral trade agreements like the Trans-Pacific Partnership, which most other nations prefer, the president wants bilateral trade agreements. This could harm U.S. exports and raise the price of imports, since it will take significantly longer to reach agreements with each trade partner individually. In addition, most other nations that the U.S. has significant trade with are looking at multilateral pacts rather than bilateral agreements, so getting them to prioritize negotiations with the U.S. may be challenging.

Just as important to the economy is immigration. Without immigration, U.S. population and labor force growth are barely positive. In the House and Senate, there are currently several proposals to cut current immigration levels in half, which could lower GDP by 50 to 75 bps and exacerbate the current skills mismatch in the labor market. This might encourage tech firms to grow in Canada, rather than the U.S.

In the short term, we are optimistic for the U.S. economy, but less so than last year. The possible paths it could take vary widely. Our forecast for economic growth in 2018 is 2.4%, but the range of possible outcomes has now widened to between 0.0% and 3.0%.

CAPITAL MARKETS

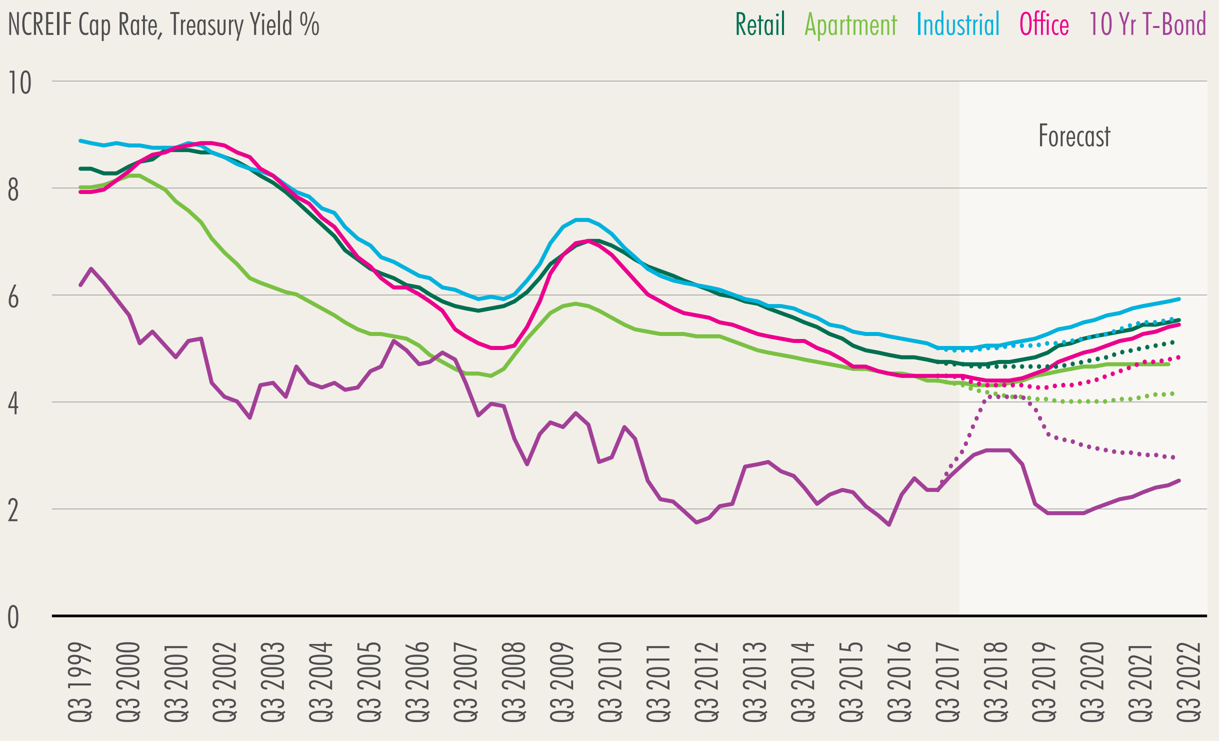
Rising uncertainty in the macroeconomy has widened the range of potential outcomes facing the capital markets. With sustained growth or an economic slowdown both being plausible scenarios, what can we expect of the U.S. economy, interest rates, CRE cap rates and asset prices in the years ahead? We lay out three potential scenarios and what they mean for CRE investment.

SCENARIO 1: ECONOMIC SLOWDOWN

(Shown as solid lines in Figures 3 and 4)

- Positive U.S. GDP growth continues in 2018, followed by a short slowdown in 2019. Growth of the economy begins accelerating again in 2020.
- Yields on 10-year U.S. Treasurys rise to 3% by the end of 2018, but fall significantly to 1.8% by 2020 as the Fed shifts to an easing stance and a "flight to safety" increases the U.S.-bound flow of global capital. Once growth resumes, rates begin to normalize, with yields on the 10-year slowly increasing to around 3% by 2027.
- Under these conditions, cap rates slowly adjust to higher interest rates in 2018 and then continue to increase during the slowdown, driven by widening risk premiums and lower expectations for net operating income (NOI) growth. Growth then resumes and cap rates increase by 30 to 120 bps by the end of 2023, with the exact magnitude varying by market and property type.
- NOI grows slowly and then goes slightly negative during the slowdown.
- Income growth resumes, as the economy starts to recover.

FIGURE 3: NCREIF CAP RATES: ECONOMIC SLOWDOWN (SOLID) VS. ROBUST GROWTH (DOTTED)



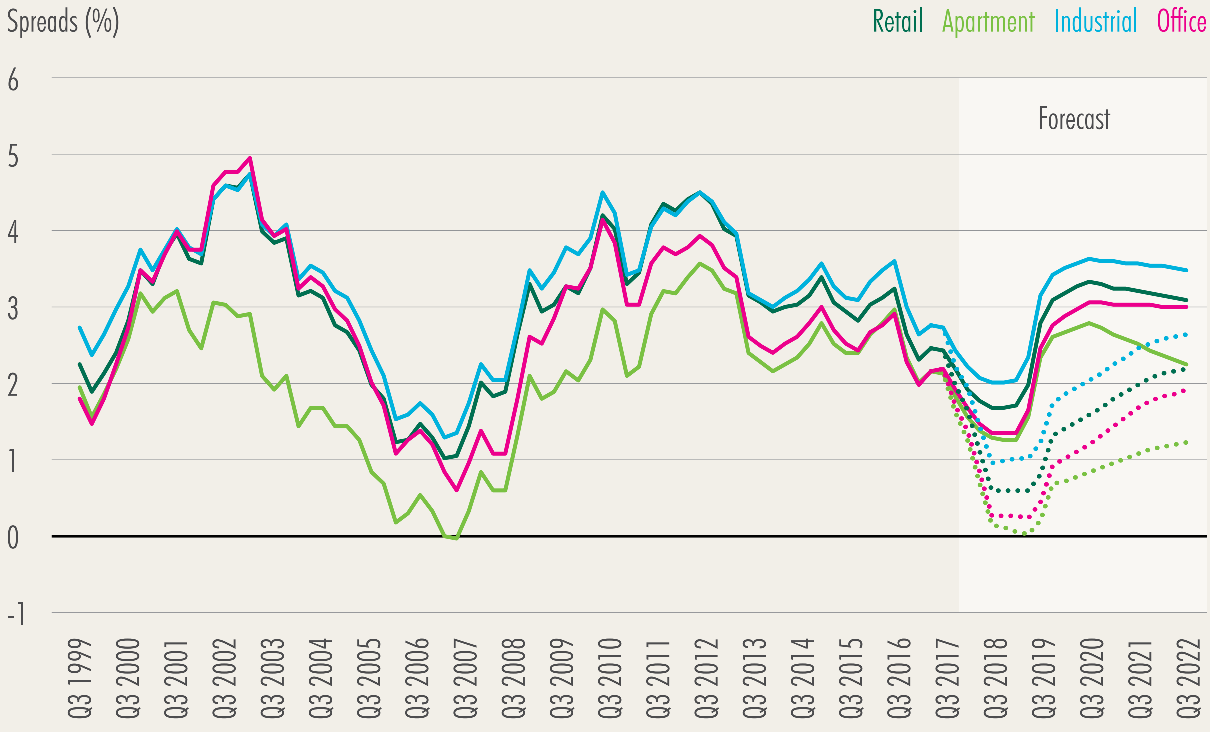
Source: NCREIF, CBRE Econometric Advisors, Q3 2017.

SCENARIO 2: ROBUST GROWTH

(Appears as dotted lines in Figures 3 and 4)

- Growth is robust for two years, with GDP annual growth reaching 3.3% by mid-2018 and then moderating to 1.5% by the end of 2020.
- Interest rates rise to 4% by Q3 2018 and then drop sharply to 3.3% by Q1 2020, subsequently decreasing to 3% by 2027.
- Cap rates stay essentially flat (possibly compressing slightly) through Q3 2019, as robust economic growth is priced in, but then slowly increase as expectations adjust to slowing growth. By 2023, prevailing cap rates for office, industrial and retail are 50 to 60 bps above current levels.
- Apartment cap rates stay relatively flat over this period, with economic growth supporting continued growth in already-high rents.
- NOI grows robustly and then slows significantly along with the U.S. economy.

FIGURE 4: SPREAD OVER 10-YEAR TREASURY YIELD, NCREIF NPI CAP RATE: ECONOMIC SLOWDOWN VS. ROBUST GROWTH (DOTTED)



Source: NCREIF, CBRE Econometric Advisors, Q3 2017.

SCENARIO 3: STAGNATION

(A five-year forecast; shown in Figures 5 and 6)

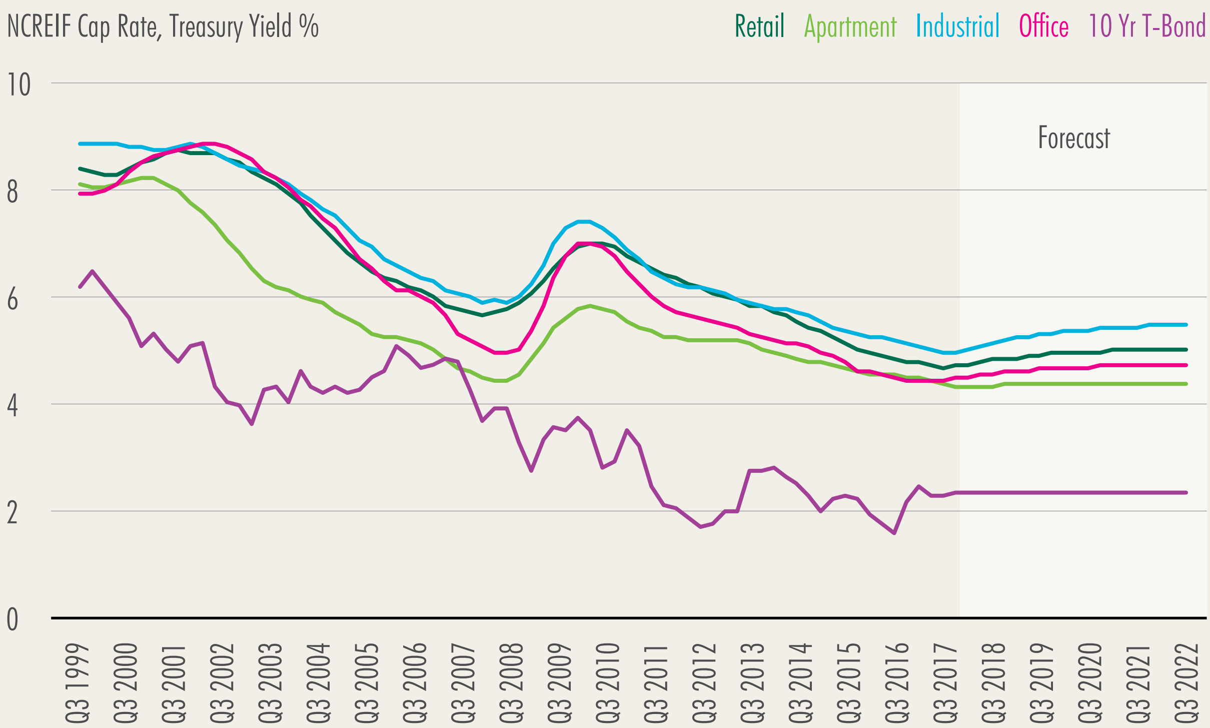
- GDP growth is slow for the next five years (0% to 1%).
- Interest rates, inflationary expectations and risk premiums remain roughly at current levels.
- CRE income growth peters off to match that of inflation (real inflation-adjusted income is flat).
- Under this scenario, cap rates either stay flat or increase by 3 to 50 bps over five years, as robust growth expectations dissipate and slow growth is priced in by investors.

2018-2021: FURTHER CAP RATE COMPRESSION UNLIKELY; INVESTORS SHOULD FOCUS ON INCOME

Whichever way the U.S. economy performs, meaningful cap rate compression is unlikely over the next three years. Under the slowdown and robust-growth scenarios, we forecast some degree of upward cap rate movement. Under the stagnation scenario, interest rates and cap rates stay roughly flat. Under none of the scenarios is income growth expected to fully offset the effect of cap rate adjustment. Our analysis implies that CRE values will either remain relatively flat or temporarily decline mildly or moderately, depending on which scenario plays out.

Therefore, investors should not count on appreciation returns—the mainstay of CRE returns over the past five years—when structuring their investment strategies for 2018 and beyond. Rather, the steady income returns that CRE is likely to generate over the period provide a solid basis for such strategy as investors simply wait out the asset value fluctuations. Our analysis deals with national trends, so a substantial variation in cap rates and asset prices may occur across markets and among individual assets in those markets.

FIGURE 5: NCREIF CAP RATES: SLOW GROWTH

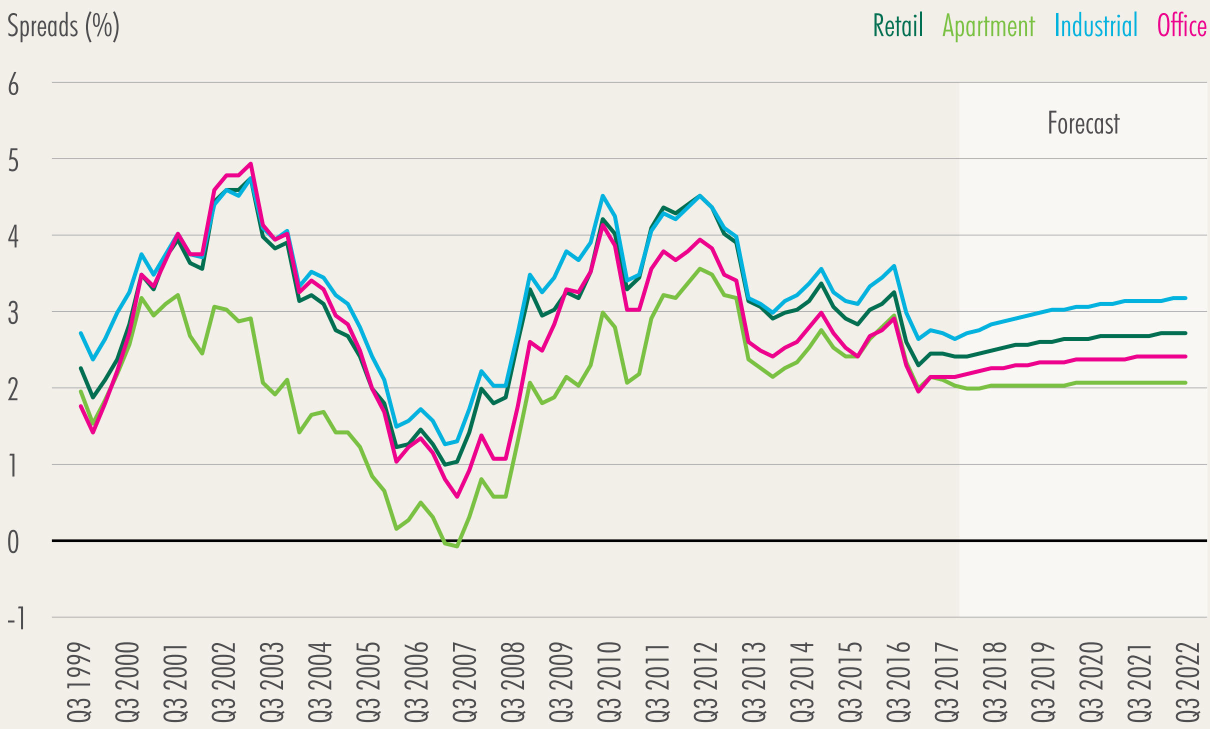


Source: NCREIF, CBRE Econometric Advisors, Q3 2017.

There is also the possibility of unanticipated events. For example, unexpectedly high international capital inflows into the U.S.—whether as part of the flight to safety or due to the relative attractiveness of the U.S. economy—might temporarily reduce interest rates, thereby causing some further cap rate compression. Or, if participants were to price income growth more aggressively than expected, some further cap rate compression would be possible in the short run.

Commercial real estate will remain an attractive investment over the period and, versus other asset classes, CRE's steady income-generating/inflation-hedging characteristics may prove very attractive. Once the adjustment is over, asset price growth likely will return and investors can rebalance their strategies accordingly.

FIGURE 6: SPREAD OVER 10-YEAR TREASURY YIELD, NCREIF NPI CAP RATE: SLOW GROWTH



Source: NCREIF, CBRE Econometric Advisors, Q3 2017.

OFFICE

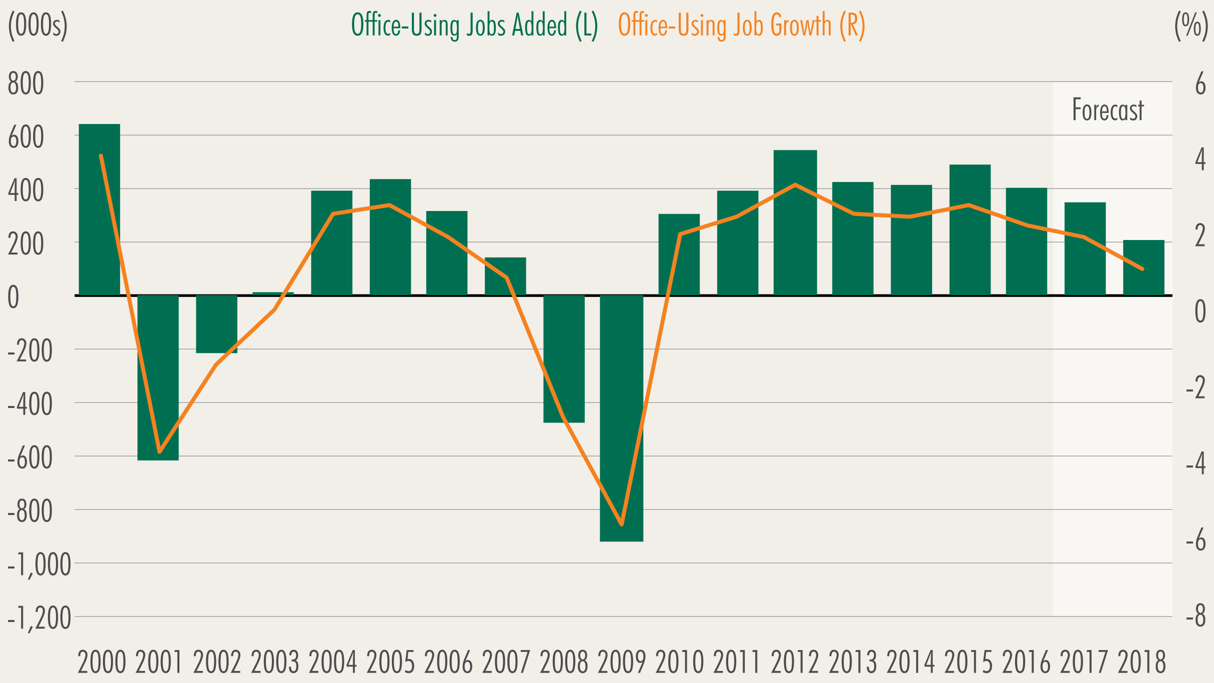
Improved U.S. office market fundamentals should continue in 2018, but at a slower pace due to higher completions and the tight labor market's impact on tenant demand. Older buildings lacking the amenities preferred by today's workforce and the infrastructure to handle evolving technologies could struggle, particularly in markets where large volumes of high-quality product are being delivered. Meanwhile, suburban submarkets that offer a range of housing choices along with urban amenities—including retail and restaurant options, public transit and walkability—are well positioned to capture demand from the maturing millennials.

As firms have focused on maximizing efficiency and productivity in their portfolios, net absorption has been more muted in recent years than in past expansions. This trend has led to more moderate but sustainable growth rates, which should continue in 2018. Office-using job growth is expected to decelerate, however, slowing net absorption to a projected 32.1 million sq. ft. in 2018—down from 2017's 50.1 million sq. ft. and the 2010-2016 annual average of 38.9 million sq. ft.

Improved business confidence in 2017 should support continued office-using employment growth in 2018, though it is projected to slow from 2017's projected 352,900 jobs to approximately 212,200—a figure well below the 2010-2016 annual average of 423,000. The scarcity of available qualified workers, reflected in October's unemployment rate of 4.1% (the lowest since December 2000),[2] is a factor. Unemployment will likely remain low next year.

[2]For those with a bachelor's degree or higher, the rate was just 2.0%.

FIGURE 7: OFFICE-USING EMPLOYMENT GROWTH



Source: CBRE Econometric Advisors, Q3 2017.

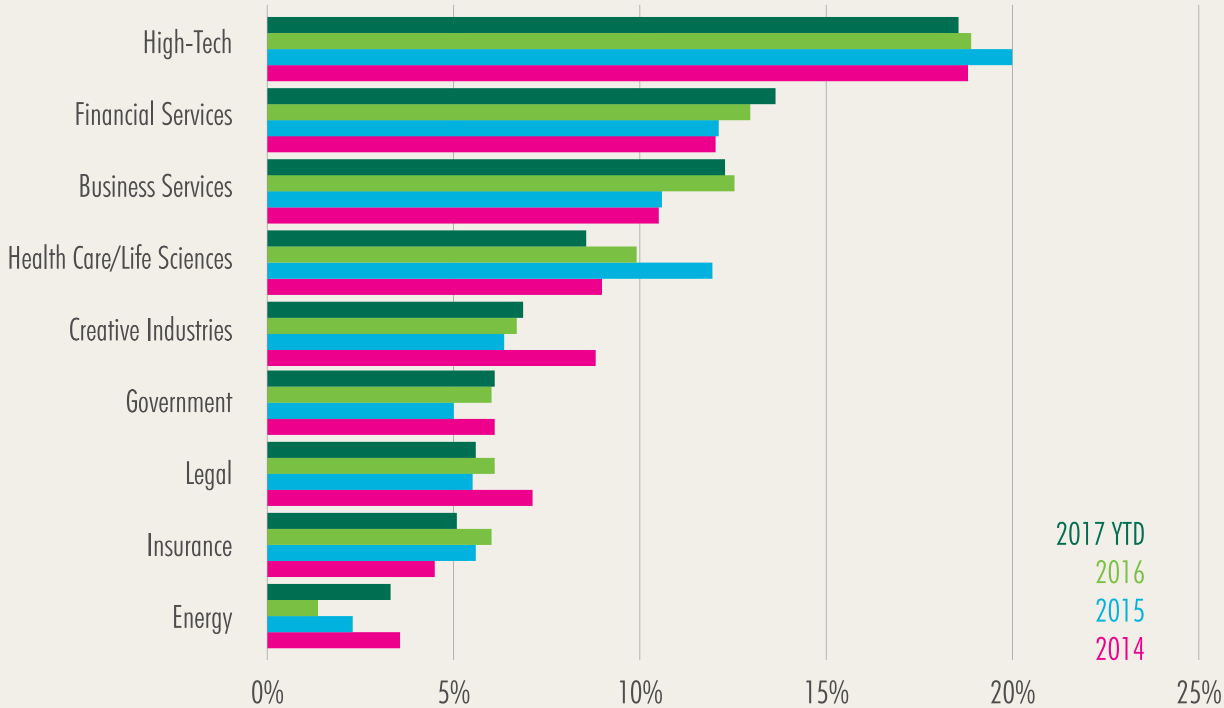
TECH SECTOR TO REMAIN TOP OCCUPIER

The tech sector has been responsible for nearly 20% of major office leasing activity in recent years. In leading tech markets like the San Francisco Bay Area and Seattle, as well as emerging, lower-cost tech hubs like Charlotte and Phoenix, it will likely remain a primary demand driver in 2018. The tech sector is expanding at about twice the rate of overall job growth, despite having slowed during the past few years.[3]

Several lagging sectors have increased their shares of office leasing activity in 2017—a positive indicator of demand coming from a wider range of industries. Specifically, prospects for reduced financial industry regulation and oil price stabilization have fueled optimism in the financial services and energy sectors, and markets with concentrations of these industries, such as New York and Houston, should benefit.

[3]See CBRE Research's *2017 Tech-30* report for more detail.

FIGURE 8: LEASING TRENDS BY INDUSTRY



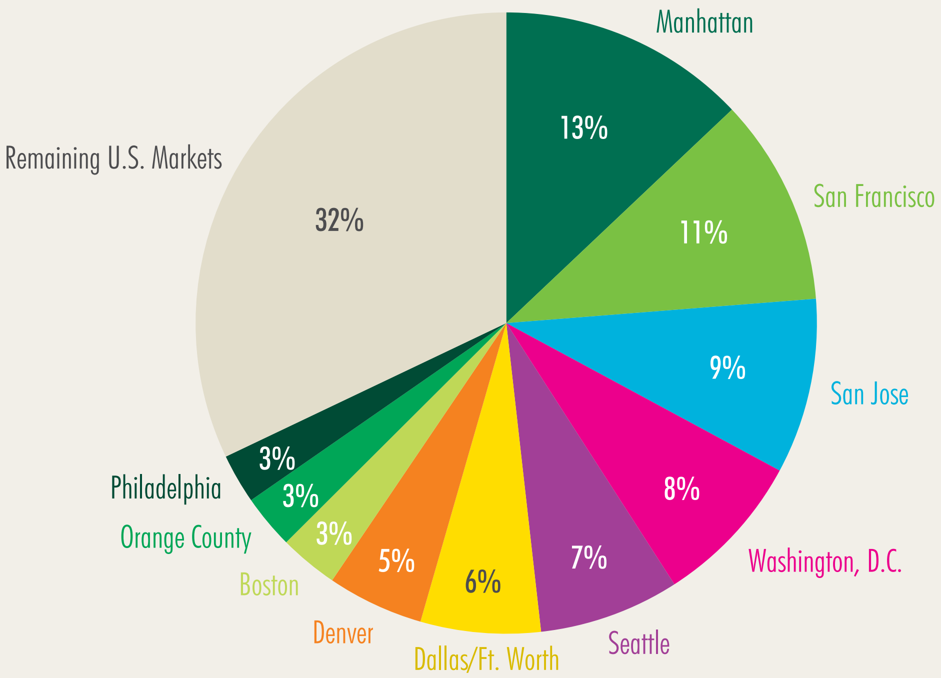
Note: Includes the 25 largest transactions by sq. ft. each quarter for the 54 markets tracked by CBRE Research.
Source: CBRE Research, Q3 2017.

NEW CONSTRUCTION DELIVIERIES TO FALL IN 2018

Development activity has been limited in recent years, due to an abundance of available space following the 2008 recession, modest rent growth in many markets and high construction costs. Due to these factors, construction has been concentrated in the strongest markets; in Q3 2017, the top five markets for square footage under construction accounted for nearly half of all underway construction in the markets CBRE Research tracks (Figure 9a). We estimate that deliveries will peak at 61 million sq. ft. in 2017, and decrease to 47 million sq. ft. in 2018 (Figure 9b). With significant construction activity occurring in Manhattan, San Francisco, Seattle, Washington, D.C. and other large downtown markets, city centers are expected to account for a disproportionate share of new supply in 2018.

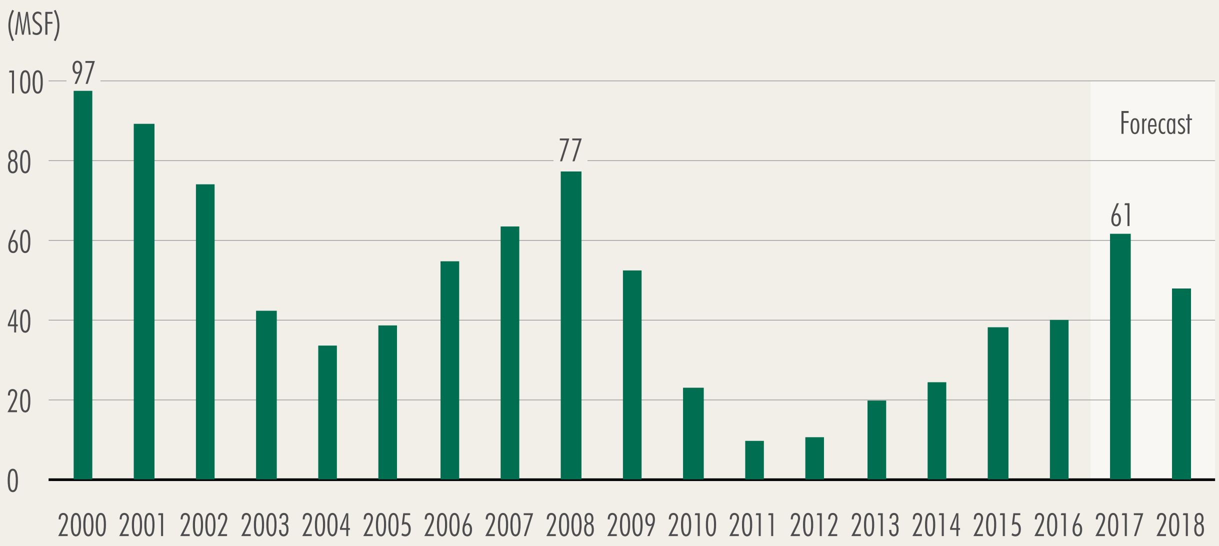
Completions are expected to outpace net absorption for a second straight year in 2018, driving a modest 20-bps increase in the vacancy rate to 13.2%—only slightly above the cyclical-low of 12.9% in Q3 2017. With a large amount of new supply slated for completion in downtown markets, the downtown vacancy rate will likely increase more (60 bps) than the suburban vacancy rate will (10 bps) (Figure 10). Given this modest increase in vacancy, we expect overall rent growth to decelerate to 2.0% in 2018 from 2.4% in 2017. The strongest gains in employment, occupancy and rents will likely occur where recovery has lagged during this cycle, and where there is little or no construction underway, including many former housing-bubble markets in the South and West.

FIGURE 9A: SHARE OF OFFICE SQ. FT. UNDER CONSTRUCTION, Q3 2017



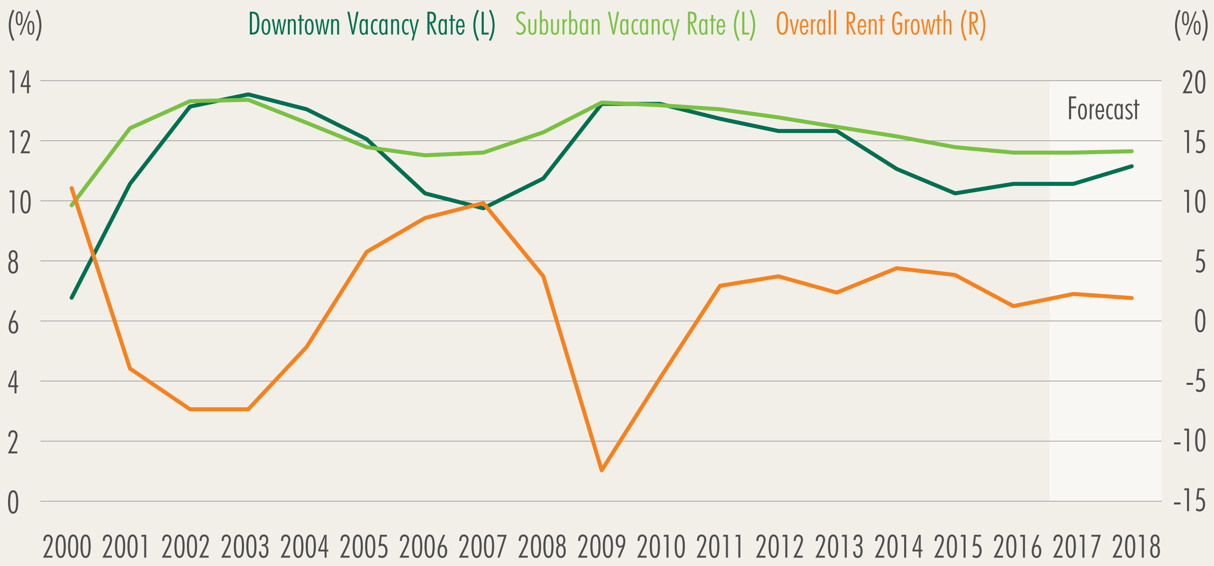
Source: CBRE Research, Q3 2017.

FIGURE 9B: OFFICE CONSTRUCTION COMPLETIONS



Source: CBRE Econometric Advisors, Q3 2017.

FIGURE 10: OFFICE VACANCY RATE VS. RENT GROWTH



Source: CBRE Econometric Advisors, Q3 2017.

OCCUPIER

LEADING WITH LABOR

Labor remains the primary challenge facing corporations, with cyclical low unemployment, technology-driven competition and a widening skills gap. Occupiers are taking a balanced approach to real estate strategy, continuing to pursue space efficiency while reinvesting savings into workplace enhancements that will attract and retain employees. Eighty-six percent of the respondents to CBRE's 2017 Americas Occupier Survey are either reinventing or adapting workplace standards to meet employee demand for more amenity-focused, flexible and technology-driven environments.[4]

Occupiers in the financial and technology sectors are leading this charge, but more conservative industries—like legal—are adopting these principles as well. U.S. law firms have lowered their space requirements by an average of 27% over the past 18 months; many have moved into prime office space and implemented improved workplace design.[5] These new standards create an attractive destination for employees and foster a sense of place, balancing the additional expenses that some of them create.

BOUNDARIES OF DENSIFICATION

As leading organizations push the boundaries of efficiency and densification, they pay careful attention to where these strategies begin to impact the functionality of a space.[6] It matters greatly that a dense, open-plan workspace is well designed. Spaces that best foster productivity strike the correct balance between private and open settings for individual and collaborative work. "Mobility," or unassigned seating, remains the trend in office design, premised on the idea that activity-based workplace design lets employees choose among productive settings to accomplish their tasks easily and efficiently. Activity-focused design usually incorporates amenities and hospitality services that support employees' work/life integration, enabling them to unplug and recharge in the office when needed. Wellness remains a core offering.

THE AGILITY MANDATE

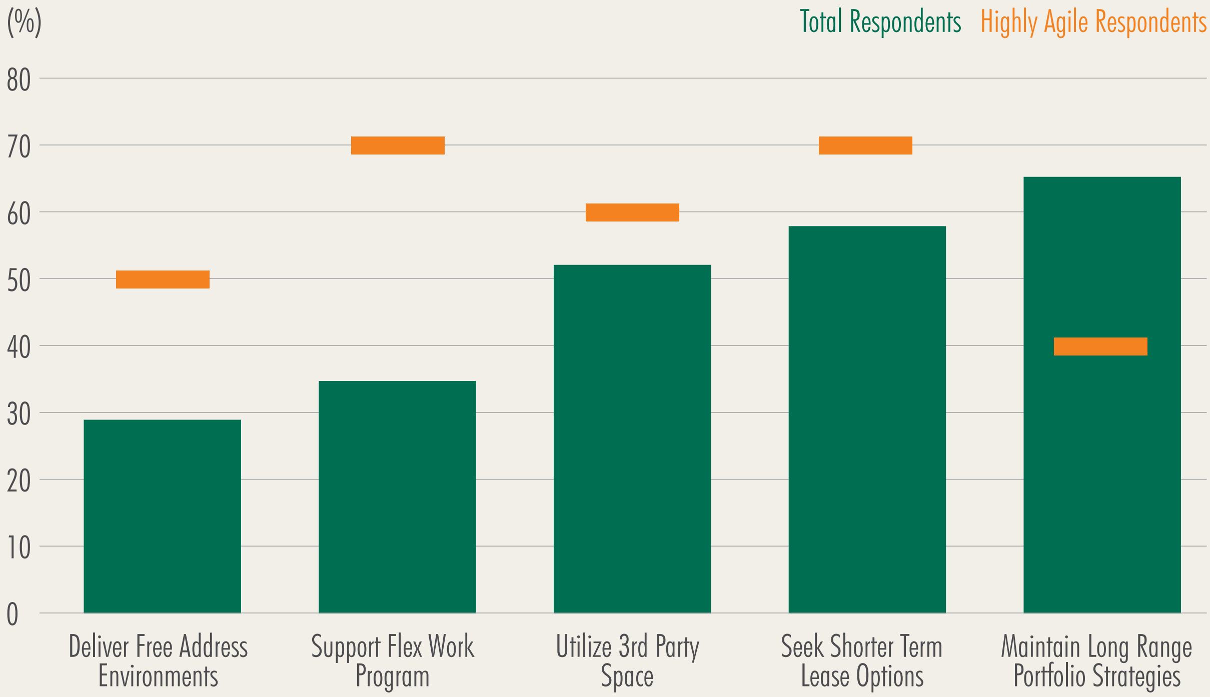
Although there has not been a material shift away from long-term leased office space, occupiers are showing clear interest in flexible-serviced agreements. A spectrum of shorter-term offerings is available to occupiers today—from traditional serviced offices, to enterprise co-working models, to on-demand space offerings. A recent CBRE survey on agility, in collaboration with CoreNet Global, found that while only 16% of respondents consider themselves "highly agile" in their portfolio strategy, 67% believe that "portfolio agility" is critical to their future success.[7] The strategies most commonly employed by self-described "agile" companies were shorter-term lease options and use of third-party service space.

Corporate policy aside, personal devices and cloud technology have made employees more mobile and have rendered the physical office an optional place to work. This has led employees to seek more choice in workplace locations and employers to pursue greater flexibility in reducing long-term commitments in an uncertain business environment. We expect corporations' interest in shorter-term leases and third-party space aggregation to grow as these models are more widely tested and understood.

[4] Americas Occupier Survey, 2017.
[5] National Law Firm Report, 2017.
[6] North America Fit-Out Cost Guide, 2017/18.
[7] Forthcoming.

FIGURE 11: STRATEGIES TO ACHIEVE PORTFOLIO AGILITY

% of respondents who undertake strategic initiative



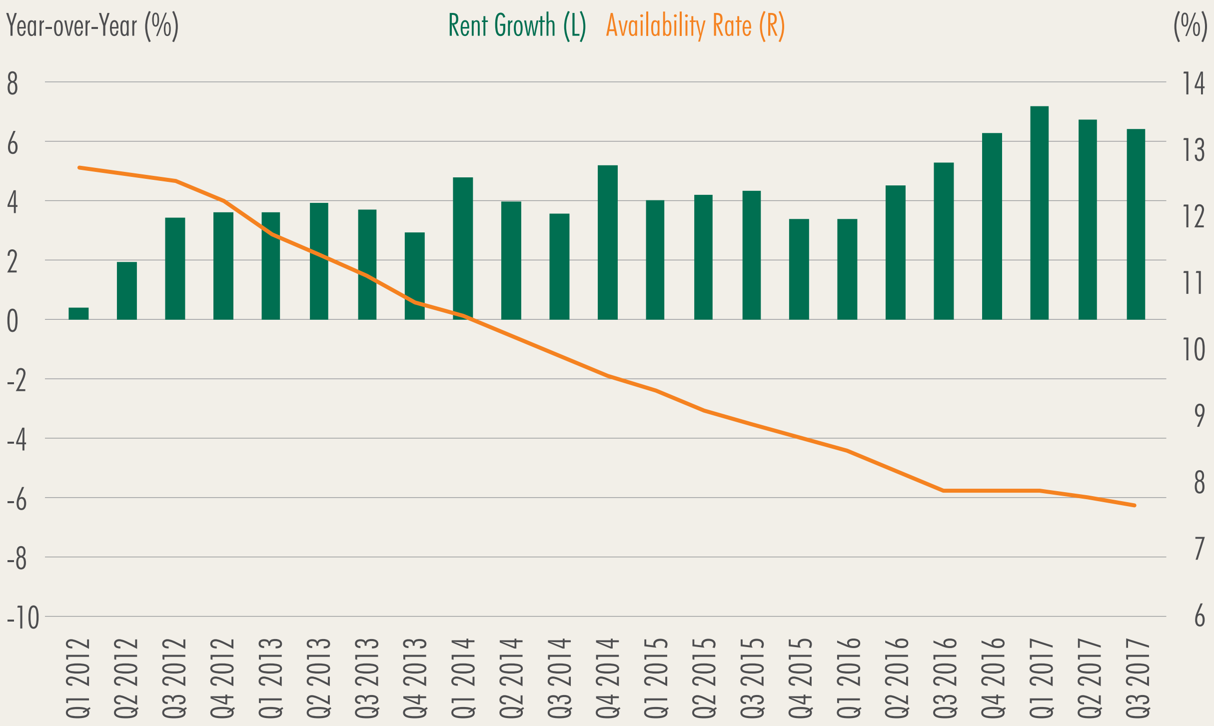
Source: CoreNet Global & CBRE Research, 2017.

INDUSTRIAL & LOGISTICS

The industrial & logistics market remains on solid footing and continues to expand. Demand has slowed a bit from its well-above-average run between 2013 and 2016, but 2017's quarterly average net absorption of 52.9 million sq. ft. is right in line with the quarterly average over the cycle that began in 2010. Consistent demand for all types of warehouse space, steadily declining availability and a steady rise in rents have been this cycle's hallmarks, resulting in some impressive milestones: 30 consecutive quarters of positive net absorption, availability at its lowest since 2001, and 24 consecutive quarters of rent growth.

From a capital markets perspective, industrial has become institutional investors' favorite asset type, and the flood of investment capital into the sector is reflected in record-level asset pricing and widespread low cap rates. For users and occupiers, pricing is at record highs across the board. Over the next year, new market entrants can expect rents to continue rising at roughly the rate of the past few years. Investors should be aware that cap rates and investment prices have stabilized, with the pricing gap between Class A and Class B narrowing.

FIGURE 12: U.S. AVAILABILITY RATE AND RENT GROWTH SINCE 2012



Source: CBRE Econometric Advisors, Q3 2017.

CHALLENGES IN THE INDUSTRIAL MARKET

Omnichannel supply chain strategies and the growth of e-commerce have been the primary drivers of demand during this cycle. The service requirements of the consumer in this "on-demand" world have forced everyone in the retail supply chain—manufacturers, suppliers, distributors and retailers—to adapt and carry more inventory in more locations to provide consumers with the fastest possible service. This has generated significant demand for warehouse and logistics space of all types and in virtually all markets, leading to record-low availabilities and record-high rents.

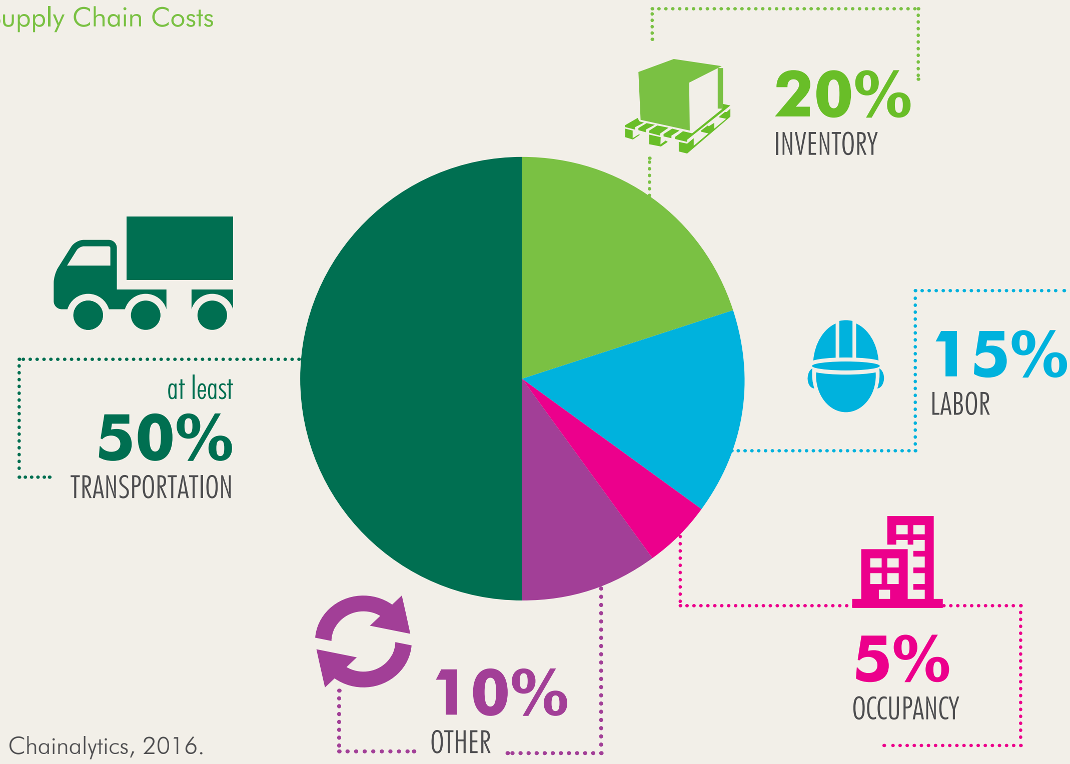
In our view, although the economic cycle is a bit extended, we are still at a very early stage in the e-commerce and omnichannel cycle. With this type of user requiring up to three times more space than a traditional retail supply chain user, and with e-commerce sales forecast to grow by 10% annually and to top $500 billion by 2020, demand for high-quality, well-located industrial real estate should not wane anytime soon.

The challenge for tenants in this market is obvious: A lack of quality choices in most markets has put users seeking to expand their supply chains in a difficult spot. While record-level rents are a concern, the compromises tenants must make on location decisions—either at the market or submarket level—are the real issue. These decisions can have a profound impact on overall supply chain costs, which are heavily influenced by transportation (both inbound and outbound) and labor costs.

On the horizon are new technologies like automated trucks and robotics; these will influence transportation and labor costs and, in turn, change site selection decisions. This will affect all markets and will likely bring less expensive land and real estate into play—sites, on the outskirts of major or secondary markets, that are currently too distant from population hubs. In theory, automated trucks have a one- or two-day service radius—much wider than a non-automated vehicle—that would allow users to operate from farther-flung locations without compromising service quality. This is likely a mid- to long-term change and doesn't impact our short-term outlook for the market.

FIGURE 13: TRANSPORTATION AND LABOR ARE MAJOR COMPONENTS OF SUPPLY CHAIN COSTS

Total Supply Chain Costs



Source: Chainalytics, 2016.

Effective, precise location decisions are paramount—so much so that users, to this point, have accepted record-high occupancy costs to secure locations from which they can operate efficiently. Location is especially critical within the last mile, where users look to reach their customers as quickly as possible. Ideal locations tend to be urban and infill—close to population clusters, but often devoid of industrial real estate. Intense competition for the real estate that does exist in these areas has driven local availability rates down and rents up, but neither has slowed demand in these prime infill locations.

We believe that rising rents, while not ideal for the tenant, are unlikely to curb demand as long as options remain in the primary and better secondary markets and submarkets. In the near term, the greatest risk to a market is an erosion of demand due to a lack of supply. The current fundamental drivers of demand—economic growth, consumer consumption and a growing omnichannel supply chain—are not likely to change next year. However, a lack of quality choices could force users to delay their decisions and could have a material impact on overall net absorption in the market.

Fortunately, the supply side is growing in response to user demand. One of the most notable features of the current cycle has been its relatively tepid development market. Since 2010, U.S. demand (as measured by net absorption) has outpaced supply by nearly 2-to-1, despite rapidly growing rents and declining vacancy. In general, the discipline shown by developers has been healthy and has allowed for steady rent growth that has virtually all markets at full recovery.

Although the gap between supply and demand narrowed in 2017 to near-equilibrium for the first time in more than a decade, the inability of the supply side to meet demand remains a problem. Users in the last mile of the supply chain are struggling to find adequate prime infill space. Development of traditional warehouse space in infill locations is difficult due to the high costs of building in cities and the lack of large sites that can support warehouses.

In response to this problem, a style of warehouse that is common in Asia and Europe—the multi-story warehouse—has begun to emerge in the U.S. Essentially three or more warehouses stacked on each other, with ramps providing trucks access to the upper units, this type of facility allows Class A distribution space to be developed on small sites that could not otherwise support such facilities. The addition of such space would be a welcome change in key markets like Los Angeles, Orange County and Oakland, where vacancy rates are below 2% and last-mile users are trying reach massive urban populations.

FIGURE 14: LAST MILE / CITY LOGISTICS GLOBAL STRATEGIES

MULTI-STORY WAREHOUSES

- A creative solution in land-constrained global hubs in APAC
- Increasingly common in dense markets in EMEA
- Raises the usable floor space per sq. ft. of land
- Access to higher floors granted via ramp and cargo lift

INFILL SERVICE CENTER

- Designed to handle orders for nearby customers quickly
- Is the most common approach in the U.S., but limited supply makes it increasingly difficult to implement
- Orders from fulfillment centers arrive, are sorted, and are prepared for delivery to the customer
- Final delivery is handled in a variety of ways, including local courier or bike messenger

Source: CBRE Research, Q3 2017.

RETAIL

Changing demographics, consumer expectations and omnichannel retailing will continue to reshape retail and its real estate environment in 2018. As consumer demand for low prices increases, growth in the off-price and discount sector will mark the online and offline retail environments. In the brick-and-mortar space, a growing performance gap between "prime" and "non-prime" assets, driven in part by some increases in retail vacancy, will create opportunities for bullish investors to obtain well-located assets at reduced prices.

Across retail segments, the evolving relationship between landlords and retailers will generate new partnerships to drive traffic and sales. Partially insulated from exposure to e-commerce, grocery stores and building material & garden supply centers should continue to perform better than other segments. Topping the national list for forecast rent growth are dynamic, high-population-growth and low-unemployment markets in the South and West, where demand will outpace supply.

CONTINUED GROWTH IN DISCOUNT AND OFF-PRICE RETAIL

The consumer trend toward off-price and discount retail will continue in 2018, with mid-range retailers seeking new ways to limit share losses to lower-priced players. Since the 2008 recession, greater consumer access to lower-priced goods—especially in key soft-goods categories like apparel and with the expansion of key discount and value retail brands—has shifted consumer spending among all age groups toward lower-priced options. This has placed significant pricing pressures on retailers in the mid-price range, who struggle to compete with the quality and brand cachet of luxury brands and the value offered by low-price players. In 2018, we anticipate many of these mid-range brands to focus on lower prices and discounting in a bid to retain customer share and adapt to new price expectations of consumers.

OPPORTUNITIES TO REPOSITION FLAGGING RETAIL CENTERS

The performance gap between well-located, prime retail assets and those considered "non-prime" (primarily B markets and below) will continue to grow in 2018, reflected in both rent levels and cap rates. In some markets, however, price declines will create opportunities for investors to capture assets with medium- and long-term growth potential at lower prices. Although negative headlines are driving low opinion of the viability of malls and strip centers in B markets, these fears are disproportionate to the growth potential in some sectors and markets, where owners who renovate or re-lease assets can increase their value. Active investors should focus on demographic trends—population density and growth, jobs and income—and due diligence to properly assess market potential, but pricing changes will create new opportunities for strategic investments in 2018. This may involve adding non-traditional retailers that drive foot traffic, such as state agencies, or converting second floors to office space.

GROWTH IN RETAILER-LANDLORD PARTNERSHIPS

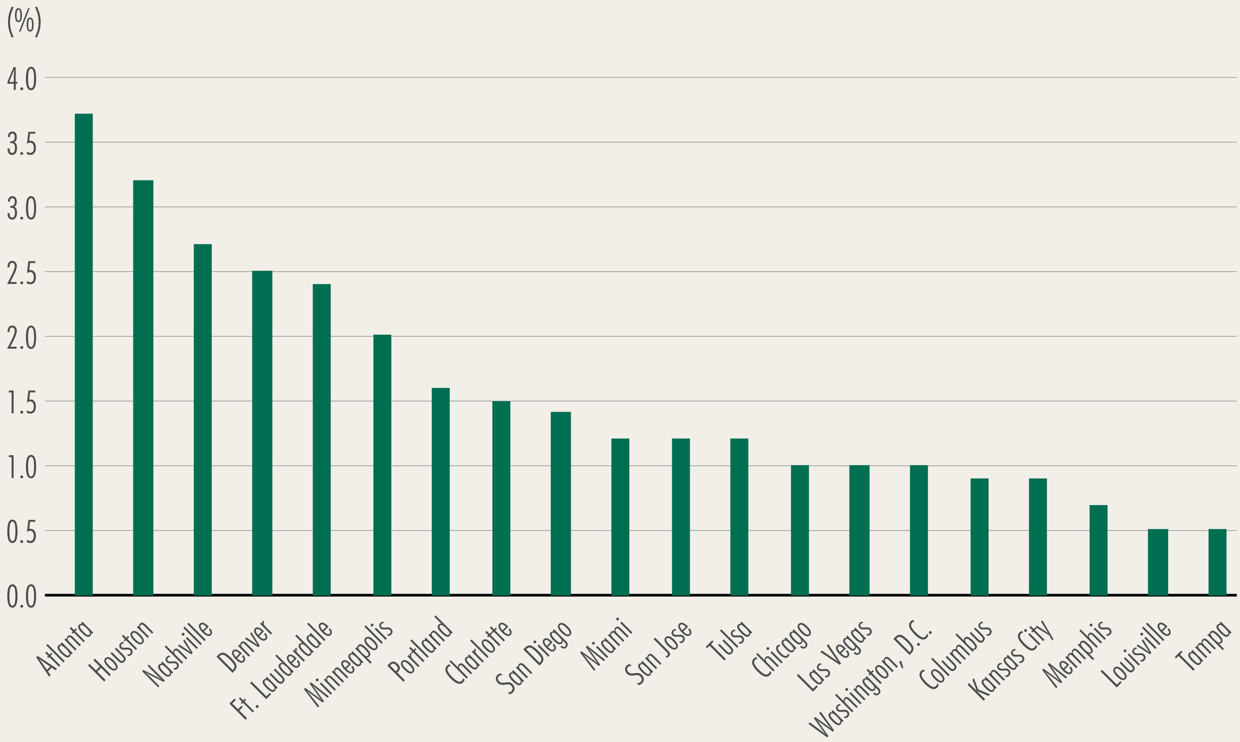
Partnerships between retailers and landlords will increase in 2018. Several factors will contribute to this trend: retailers demanding more flexibility in lease lengths and terms, landlords looking for ways to ensure the long-term viability of their tenants, and both sides seeking new ways to drive traffic and sales in brick-and-mortar stores. As omnichannel continues to evolve in 2018, retailers and landlords will realize that working together through shared data, marketing and other initiatives is more effective than working apart. We expect to see new and more prominent examples of this partnership trend next year, with landlords investing more in new retail concepts through incubator initiatives. Data sharing between retail tenants and landlords—especially in the mall segment—in key areas like traffic and sales will increase, as both sides seek to improve revenue and marketing effectiveness.

STRONG RENT GROWTH EXPECTED FOR SOME NON-GATEWAY MARKETS

Non-gateway markets like Atlanta, Houston, Nashville and Denver should see rent growth of at least 2.5% over the next five years, as demand outpaces supply. Successful redevelopment in the urban core and a rise in mixed-use projects in the suburbs, together with strong employment and population growth, make these markets especially attractive to investors. Major gateway markets like Washington, D.C. and Chicago, where demographic and demand growth are steady but less robust, are expected to see rents grow, but at a more moderate pace.

Potential demand for each retail center type can be forecast using local retail employment growth projections. Due largely to closures, department store employment dropped by 3% in the past year—a trend that is expected to continue. Other segments with weak employment-growth forecasts include apparel, sporting goods and electronics, while healthy employment growth is expected for grocery stores and building materials & garden supply stores.

FIGURE 15: ANNUAL RENT GROWTH BY METRO, NEXT 5 YEARS



Source: CBRE Econometric Advisors, Q3 2017.

HOTEL

Leisure travel is increasingly important to hotels' strong financial performance. This is evident in changes in the timing of hotel demand over the past 15 years. Hotels had long earned the highest ADRs during mid-week from business travelers on expense accounts, and weekend rooms were offered at a discount to attract leisure guests. In 2000, U.S. ADRs were $82.41 on weekdays and $79.74 on weekends. Since then, an inversion has occurred: By 2016, weekend ADRs exceeded weekday ADRs, $120.87 to $118.54. This is not a startling shift, but one that points to leisure travel's growing importance.

The oversized growth in leisure demand is partially explained by shifts in the hotel guest profile and in the spending habits of U.S. age cohorts. In 2015, well-heeled, travel-happy senior citizens contributed the largest share of total spending on lodging. Spending by seniors will likely continue to increase as the last cohort of baby boomers enters the seniors age group.

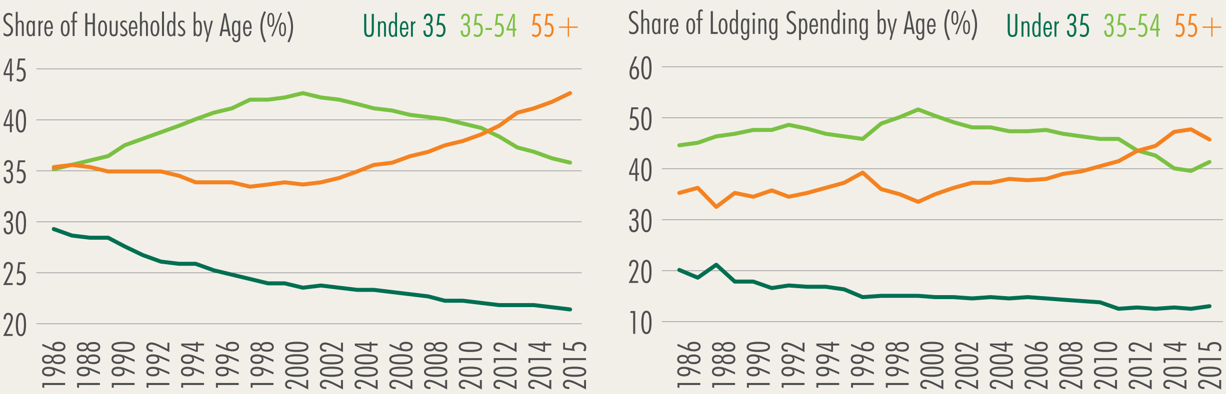
FIGURE 16: LEISURE TRAVEL GAINS: COMPARING WEEKDAY AND WEEKEND PERFORMANCE

Average Daily Rate

Year	Weekday	% Δ	Weekend	% Δ	Total	% Δ
2000	$82.41		$79.74		$81.57	
2005	$87.73	6.5%	$87.92	10.3%	$87.79	7.6%
2010	$94.02	7.2%	$93.18	6.0%	$93.75	6.8%
2016	$118.54	26.1%	$120.87	29.7%	$119.28	27.2%
2000-2016 Change*		2%		2.6%		2.4%

*Compound annual growth
Source: STR, Q3 2017.

FIGURE 17: SENIORS REPRESENT GREATER SHARE OF HOUSEHOLDS AND LODGING SPENDING



Source: U.S. Bureau of Labor Statistics, Tourism Economics, CBRE Hotels' Americas Research, Q3 2017.

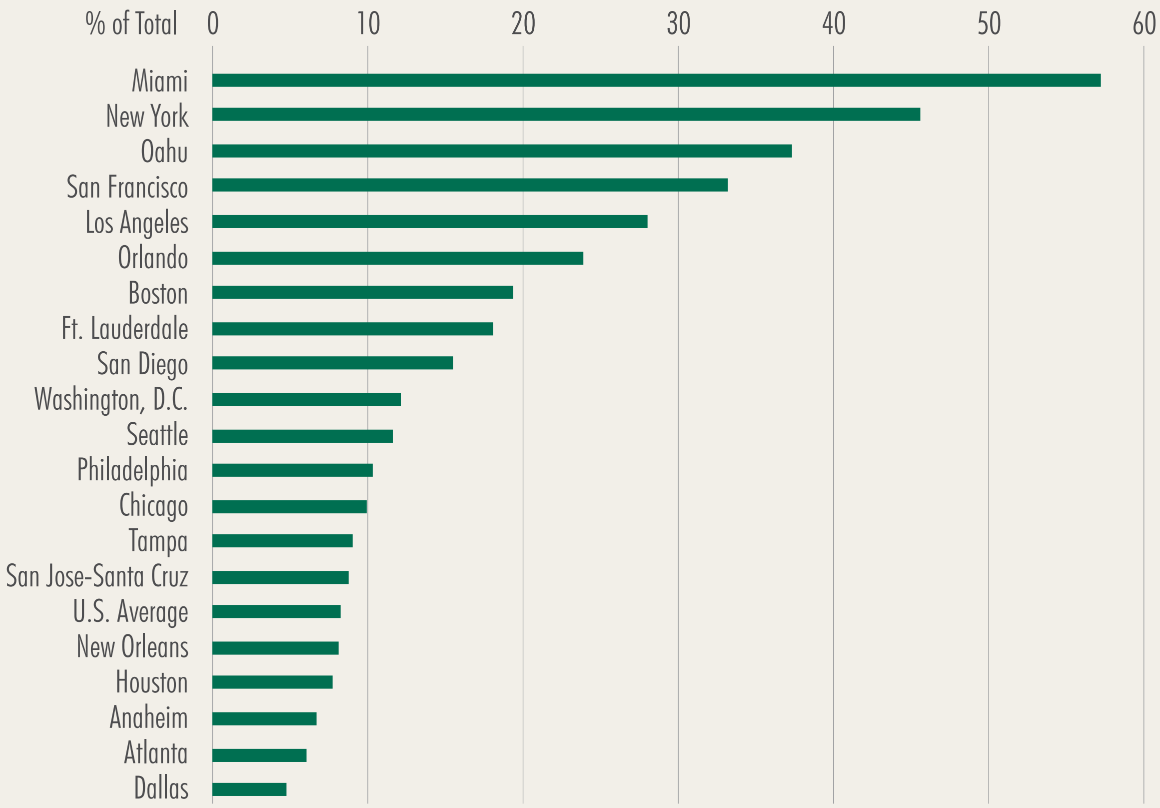
INTERNATIONAL EXPOSURE

The impact of international visitors to the U.S. is difficult to determine, as their share of room nights sold is not well documented and is sometimes incorrectly stated. While aggregate data show continued growth in travel to the U.S., they do not note where these visitors secured lodging. In locations where international travel demand constitutes a major share of total demand, anything that could negatively impact that demand adds to the overall risk of hotel investment in those markets. A recent CBRE Hotels' Americas Research study found that in two major U.S. cities—Miami and New York—international travel accounts for approximately half of the total room nights sold. In four other cities—Oahu, San Francisco, Los Angles and Orlando—the contribution from international travel is 25% or more.

IMPLICATIONS FROM HOTEL DEMAND DISAGGREGATION

While the conclusions that can be drawn from aggregated data are limited, dissecting hotel demand reveals opportunities for NOI growth (through ADR growth) and highlights component risks. Recognizing that hotels are positioned to take advantage of leisure demand growth—especially from senior-age travelers—will serve investors well.

FIGURE 18: ESTIMATED INTERNATIONAL TRAVEL DEMAND BY MARKET



Source: U.S. Department of Commerce ITA, STR, City Visitor Reports, CBRE Hotels' Americas Research, Q3 2017.

MULTIFAMILY

Development will play a key role in the U.S. multifamily market in 2018. Developers are poised to register the second-highest annual completions count of this cycle, with as many as 258,000 units delivered.[8] This would be down by 9.2% from 2017's cycle peak, projected at 284,000. Apartment starts began to slow in 2017, so the multifamily market will get a reprieve from new supply by late 2018 and throughout 2019.

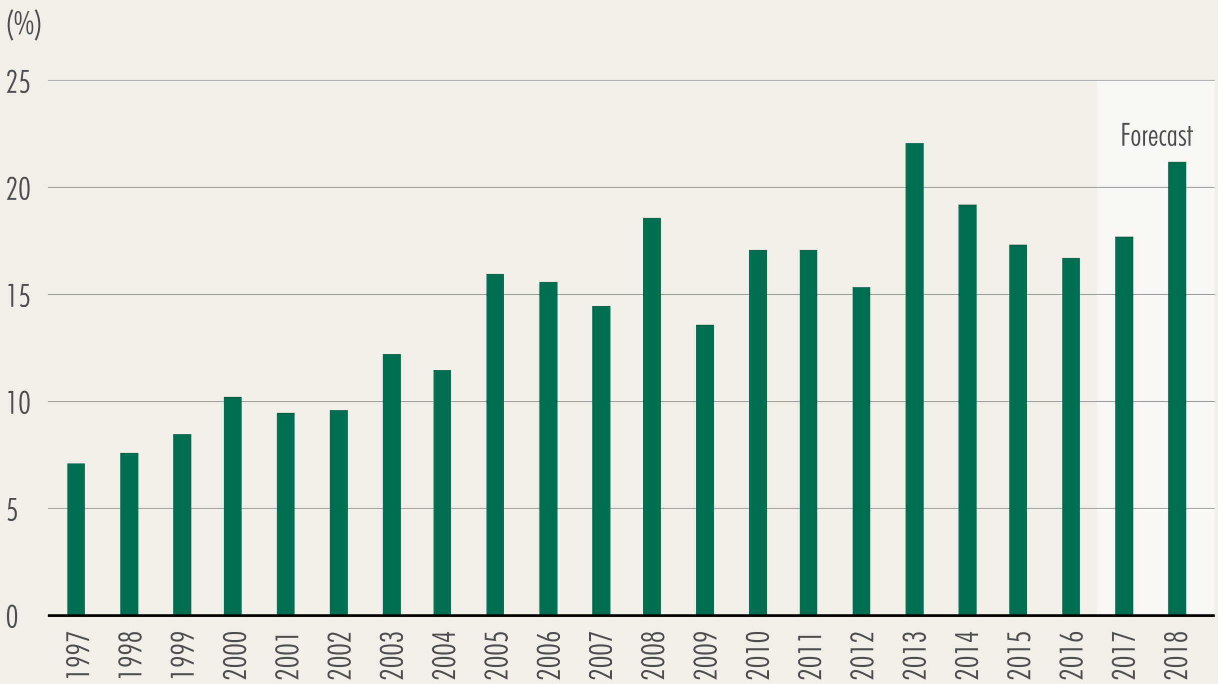
Starts will continue to slow in 2018, as banks have scaled back development lending over the past two years. While other sources of development capital have emerged (e.g., debt funds) or reemerged (e.g., HUD financing), the climate for financing new development should remain more conservative, and debt capital costs more expensive. The availability and cost of labor are additional challenges driving the significant rise in building costs.

As of December 2017, nearly 23% of all units under construction in U.S. markets are in urban cores. In the long term, urban core multifamily will perform well, but for the short term, market statistics indicate that the best development opportunities are in the suburbs.

New suburban development will focus on areas with a strong live-work-play environment. These are submarkets located outside of the urban core that have characteristics similar to downtowns (e.g., concentrated employment, retail and entertainment amenities, etc.). This focus will bring higher-density, upscale apartment living to the suburbs, and with more millennials starting families, developers are factoring access to superior schools into their site-selection process.

[8]This is based on the 62 markets tracked by CBRE Econometric Advisors.

FIGURE 19: TWO DECADES OF INCREASING FOCUS ON URBAN CORE CONSTRUCTION



Note: Historical values are shares of completions; 2018+ is the share of units currently under construction.
Source: CBRE Econometric Advisors, December 2017.

PUSH AND PULL: FACTORS DRIVING THE MIGRATION OF APARTMENT DEMAND

A pattern of net migration out of major markets and into some surrounding suburban counties and secondary markets has persisted throughout this cycle. Understanding the drivers of such patterns is critical to an informed investment strategy. Migration drivers fall into one of two categories: push factors or pull factors.[9]

As push factors work to drive certain demographics out of bigger markets, pull factors draw populations inward from around the country. Together, these dynamics are highly correlated with recent years' clear outperformance in mid-sized markets and suburban submarkets —a trend that will persist in 2018 and beyond.

Higher overall costs of living and the accompanying lack of affordability have pushed some residents of larger markets to look for greener pastures. While this is not true of all demographics, migration data indicate that affordability is a serious concern for many.

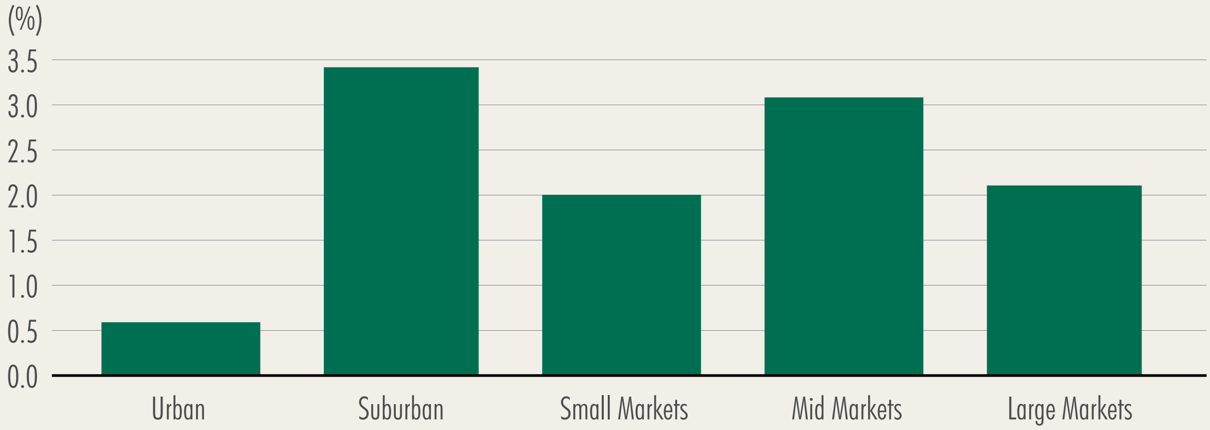
Pull factors are more nuanced, but there are three key types of markets that offer a strong connection with people on the move:

- "Knowledge hubs" that have strong concentrations of employment in high-skill industries; these markets also tend to have a strong academic presence (e.g., Austin, Nashville and Denver).
- Many secondary markets located near major markets and that offer diverse employment sectors and labor pools, as well as rich amenity bases and favorable relative costs of living (e.g., San Diego and Portland).
- Emerging low-cost urban hubs like Dallas and Atlanta that continue to post some of the nation's largest net in-migration numbers.

All markets offer unique investment opportunities and risks. Knowledge hubs seem to have the strongest fundamentals currently, but while their industry mixes draw well-educated workers and their favorable cost of living is a boon for employment and population growth, many are also facing significant headwinds from the supply side. Demand drivers are strong in the proximate secondary markets too, but the demographic mix in these markets might be less conducive to high-end, high-priced product. Low-cost urban hubs offer strong fundamentals but also face supply challenges like many of the country's largest cities. Ultimately, to achieve outsized late-cycle returns, today's investment strategy must find balance among all these trends.

[9]Major markets are defined as New York City; Washington, D.C.; Boston; Chicago; Los Angeles and San Francisco.

FIGURE 20: RENT GROWTH BY MARKET SIZE AND SUBMARKET TYPE, TWO-YEAR ANNUAL AVERAGE*



*Markets tracked by CBRE Econometric Advisors, broken into tercile by size of the market as measured by rentable apartment units.
Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2017.

DATA CENTERS

The U.S. wholesale data center market continues to thrive, with sustained record-setting absorption levels for the past three years. Our outlook for data center demand remains bullish, fueled by ever-increasing data consumption, storage, compute power and the rapid evolution of technology—from self-driving vehicles, to networked homes, to advancements in mobile, interconnectivity and content delivery. Transformation and flexibility are the key themes in the multi-tenant data center space in 2018.

Investors should focus on primary data center markets such as Northern Virginia, Chicago, North Carolina and Portland, where hyperscale cloud service providers (CSPs) are locating and which have direct cloud on-ramps, interconnection hubs and cloud nodes. Investment risks include potential oversupply of data center facilities, and power disruptions that lead to a significant amount of downtime for data center operations. Other considerations include whether there is a growing market for niche cloud providers, whether cloud adoption will help or hurt demand in the colocation market, and whether international data center operators will find success in the U.S. market.

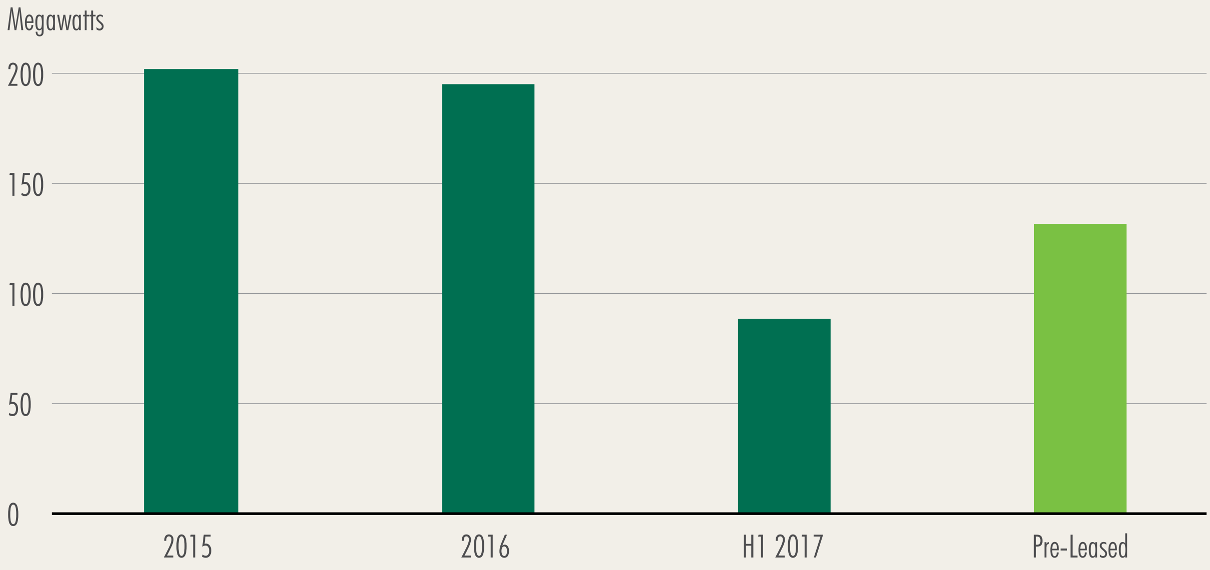
Perhaps more than any other real estate asset type, the data center sector has emerged as one of the most globally focused. For both multi-national enterprise users and hyperscale cloud service providers, data center requirements continue to stretch around the world, with single users often simultaneously focusing on far-flung locations like Tokyo, Portland, Chicago and Amsterdam.

CLOUD ADOPTION

The rapid adoption of cloud solutions has fueled a bifurcation of demand channels: traditional enterprise end-users and hyperscale cloud providers. Enterprise end-users (e.g., financial services, insurance, retail industry verticals) continue to migrate from owning and operating their own facilities and deploying IT infrastructure to a hybrid mix of third-party colocation and the cloud. The outlook for 2018 is for continued small but rapidly expanding end-user data center requirements focused on major interconnection hubs near major cloud service provider nodes.

To keep up with cloud adoption demand, hyperscale CSPs will continue their focus on cost-competitive solutions to keep cloud pricing low. However, their need to expand rapidly and in multiple markets will continue to fuel their own builds as well as their deployments with third-party data center operators.

FIGURE 21: PRIMARY MARKETS - NET ABSORPTION & PRE-LEASING



Source: CBRE Research, H1 2017.

M&A/INVESTMENT

Capital flowing into the data center space exploded in 2017, with many new investors and operators entering the space. Total investment volume likely will exceed $20 billion for the year. While investor demand will remain robust in 2018, the lack of opportunities and the intricacies of data center assets—particularly value-add and single- to multi-tenant conversions—may curtail the record-setting volume of 2017.

DATA SECURITY

There have been a significant number of headline-grabbing, data-related outages and breaches in the past year, several of which contributed to third-party data center leases in several markets as concerns about mitigating data security risks reached the C-suite level. We expect this will continue contributing to demand in 2018, particularly as many enterprise users become increasingly sensitive to the risk in owning and operating their own data center facilities, outside of their core business.

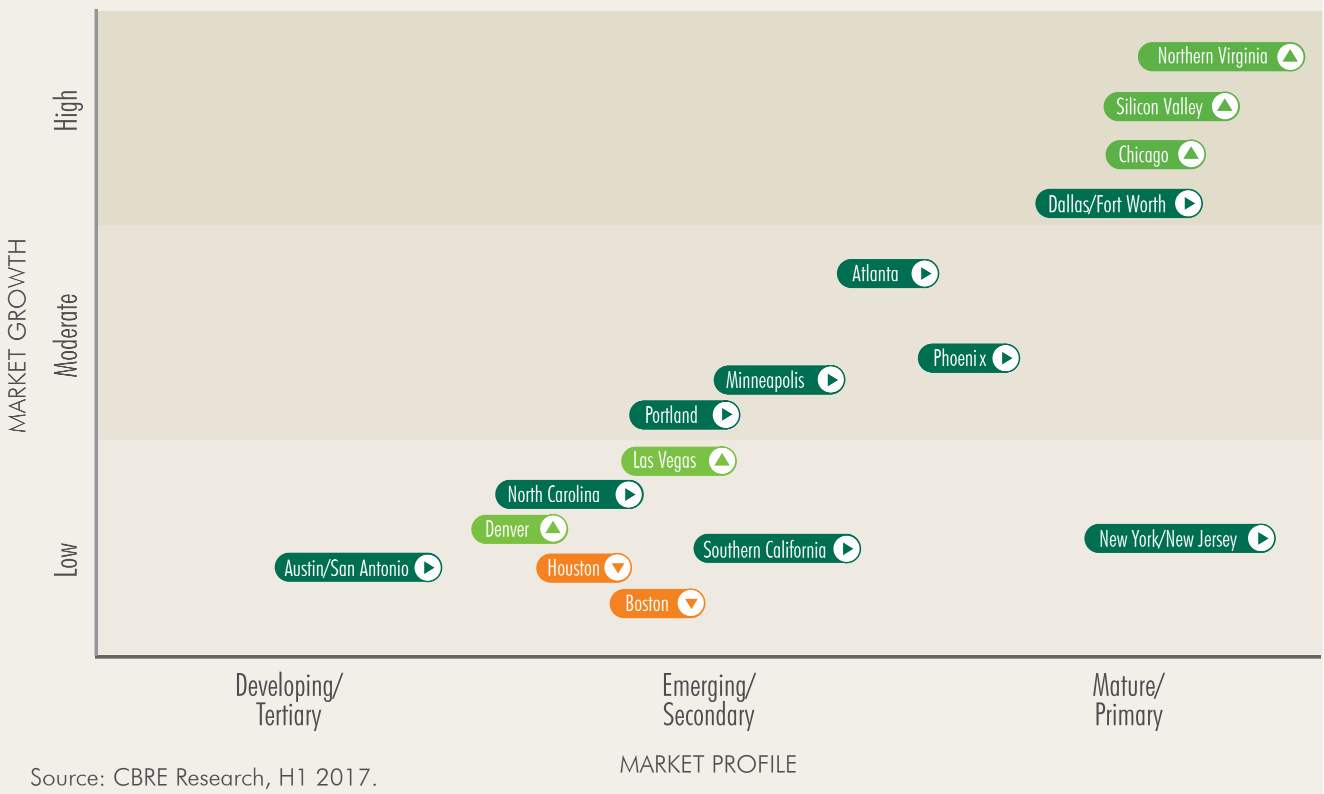
CONSTRUCTION BOOM?

Nearly 300 megawatts are scheduled for delivery next year in the primary data center markets that CBRE tracks.[10] We do not foresee any risk of oversupply, since key markets like Chicago, Northern Virginia and Silicon Valley currently have vacancy rates near or below 5%. Furthermore, pre-leasing levels remain high, with nearly 50% of oncoming capacity already committed.

Looking ahead, a trend toward more speculative development is clearly shifting the sector. Potential tenants are more willing to share expansion goals and needs with operators and, anecdotally, data center providers have lamented missing opportunities due to their inability to deliver product in the necessary timeframe.

[10] Atlanta, Chicago, Dallas/Ft. Worth, Northern Virginia, New York/New Jersey/Connecticut Tri-State, Phoenix and Silicon Valley.

FIGURE 22: DATA CENTER MARKET MATURITY



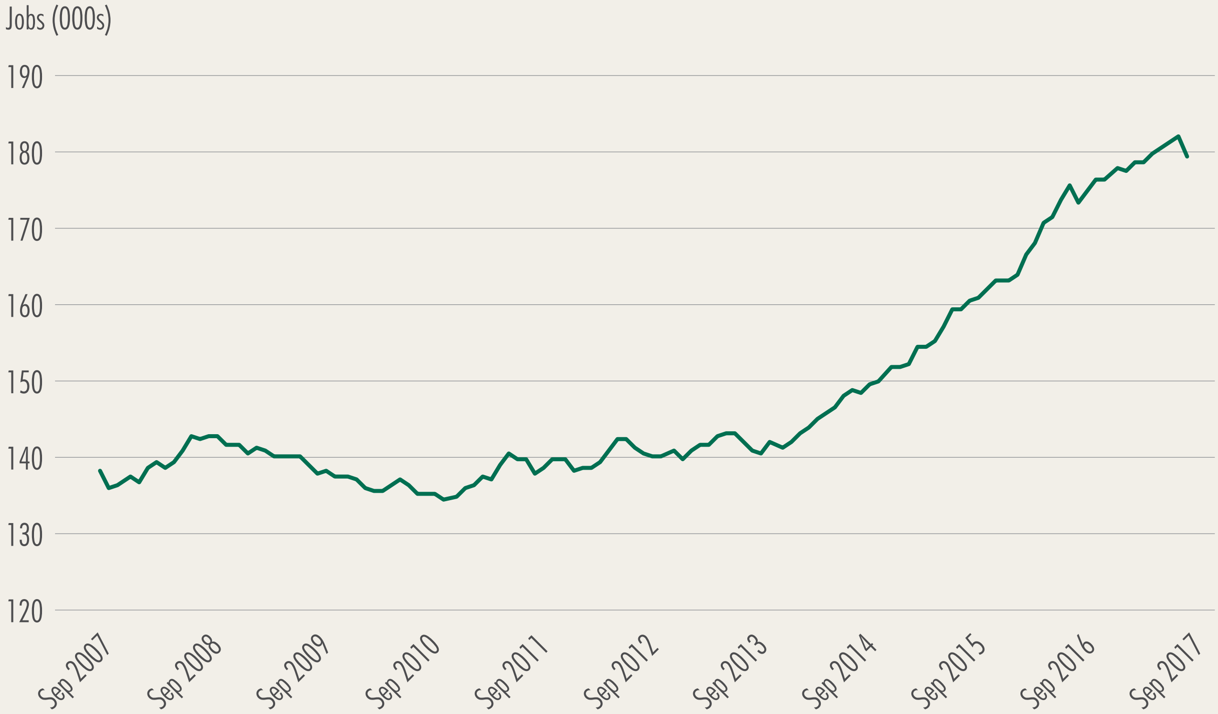
Source: CBRE Research, H1 2017.

LIFE SCIENCES

A staggering pace of technological advancement and an aging population are generating immense opportunity and acute risk in the life sciences industry, which roughly encompasses the pharmaceutical, biotechnology and medical device sectors. Commercial real estate plays a front-and-center role as the industry addresses these dynamic changes, particularly in laboratory space, where the bulk of the industry's innovation occurs.

Over the four years ending September 2017, U.S. employment in biotechnology research surged 27.1%, versus 7.2% for all jobs. The effect on demand for laboratory space has been sharp, with stronger demand in major markets and a select group experiencing double-digit growth in lab rents. With funding capital plentiful, demand should remain steady in 2018. Speculative supply has emerged in San Francisco and Boston—a relatively unusual occurrence—and while capital is relatively abundant, venture capital funding has plateaued for this industry that relies heavily on it for growth.

FIGURE 23: U.S. BIOTECHNOLOGY RESEARCH EMPLOYMENT



Source: U.S. Bureau of Labor Statistics, November 2017.

WHAT'S DRIVING THE BOOM?

At the most basic level, the life sciences industry is growing because more people are facing health issues. But quickening advancement in software and computing power has enabled massive breakthroughs in life sciences, such as researchers' ability to map the human genome. For example, rapid technological advances have reduced the cost to perform gene sequencing from $95.3 million in 2001 to $1,200 as of 2015.[11] This rapid, technology-driven innovation is leading to major opportunities in personalized medicine: customized, more effective solutions to health challenges based on a person's genetics.

Nonetheless, the health care and life sciences industries are under increasing pressure from unsustainable health care costs. In 1980, annual per-capita health care consumption in the U.S. was $1,022. By 2015, it had grown to $9,508. As a result, the life sciences industry has shifted away from the volume and breadth of product it has historically provided, and is scrambling to identify solutions that are more effective and less costly. Cost pressures have driven the industry to focus on operating in markets with greater concentrations of scientific talent, and this is reflected in the market dynamics for laboratory space throughout the country.

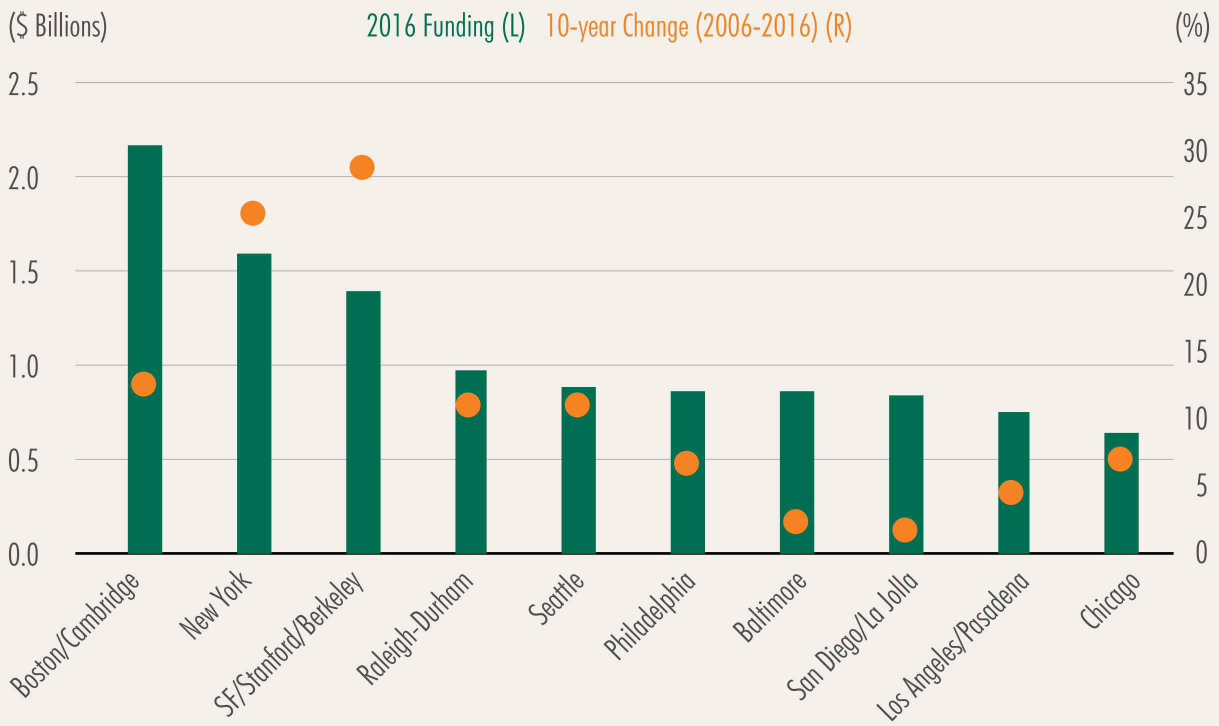
ACCESS TO CAPITAL INTENSIFYING DEMAND FOR SPACE

The success of today's most vibrant life sciences ecosystems can't be fully attributed to their respective pools of scientific talent. Particularly for an industry that is hyper-focused on innovation and new solutions, the availability of capital for cutting-edge research is another key element.

The major source of funding for life sciences research in the United States is the National Institutes of Health (NIH), which

[11] National Institutes of Health, National Human Genome Research Institute.

FIGURE 24: NIH FUNDING TO METRO AREAS



Source: NIH, CBRE Research, Q3 2017.

distributed $24.6 billion to universities, medical schools, research institutes and private organizations in fiscal year 2016. As it intensely pursues more effective and cost-sensitive solutions, the life sciences industry is unsurprisingly converging on locales where NIH funding is concentrated. Approximately 25% of every dollar distributed by the NIH goes to California and Massachusetts; within these states, it goes disproportionately to the San Francisco Bay Area and to Boston-Cambridge. Likewise, the venture capital industry plays an important role in financing cutting-edge research, especially for early-stage life sciences companies. Most of these investments are also concentrated and growing in California and Massachusetts.

OPPORTUNITIES AND RISKS FOR CRE IN THE LIFE SCIENCES SECTOR

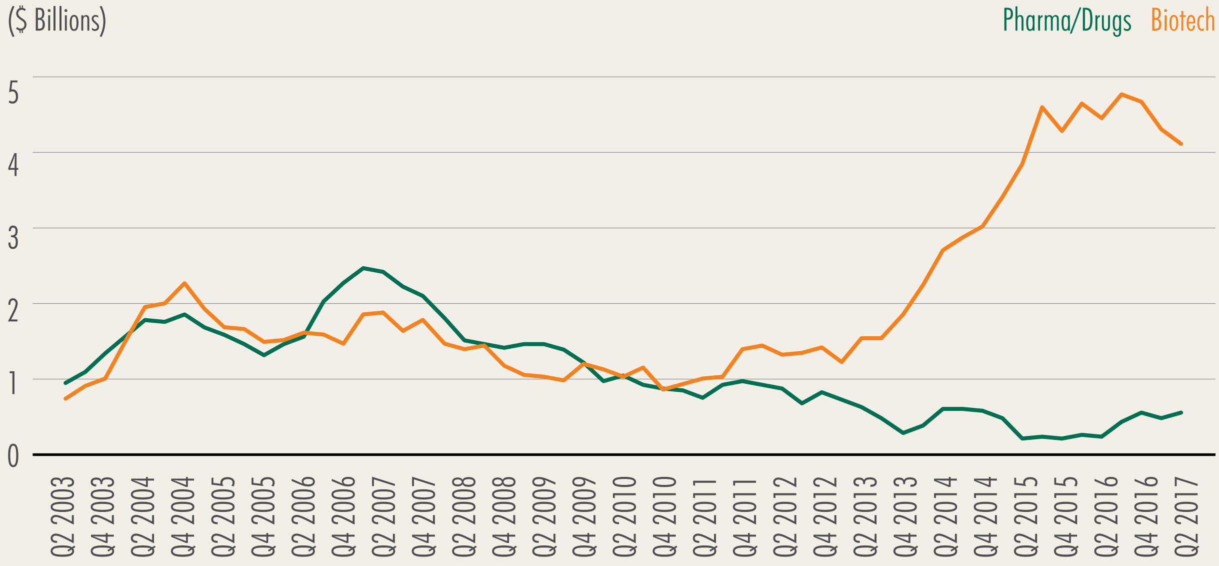
Strong demand drivers, rapid technological advances and plentiful capital have most life sciences clusters around the nation experiencing strengthening fundamentals in their laboratory markets. However, differences in the caliber and depth of scientific talent, as well as access to capital, have created diverging degrees of vibrancy across markets.

Some markets are enjoying remarkable success as laboratory rents surge, space is rapidly absorbed and significant construction ensues (Boston-Cambridge and San Francisco). Average asking laboratory rents in Boston-Cambridge have risen by more than 50% since 2013. There is little indication that such strong trends won't continue in 2018.

Other life sciences markets are more exposed to consolidation in their outsized pharmaceutical and medicine manufacturing bases (New Jersey, Philadelphia, Chicago), but are still experiencing exceptionally strong momentum in select submarkets. As a result, these markets will continue to strengthen, but also reconcile with legacy industry properties.

Nonetheless, the amount of new supply—much of it speculative—in clusters like Boston and San Francisco should be closely monitored, despite the considerable demand. Moreover, the surge of venture capital, which drives significant demand for lab space, has plateaued and therefore also warrants close monitoring.

FIGURE 25: VENTURE CAPITAL FUNDING BY INDUSTRY (4-QTR MOVING SUM)



Source: PwC Moneytree, Q3 2017.

MEDICAL OFFICE

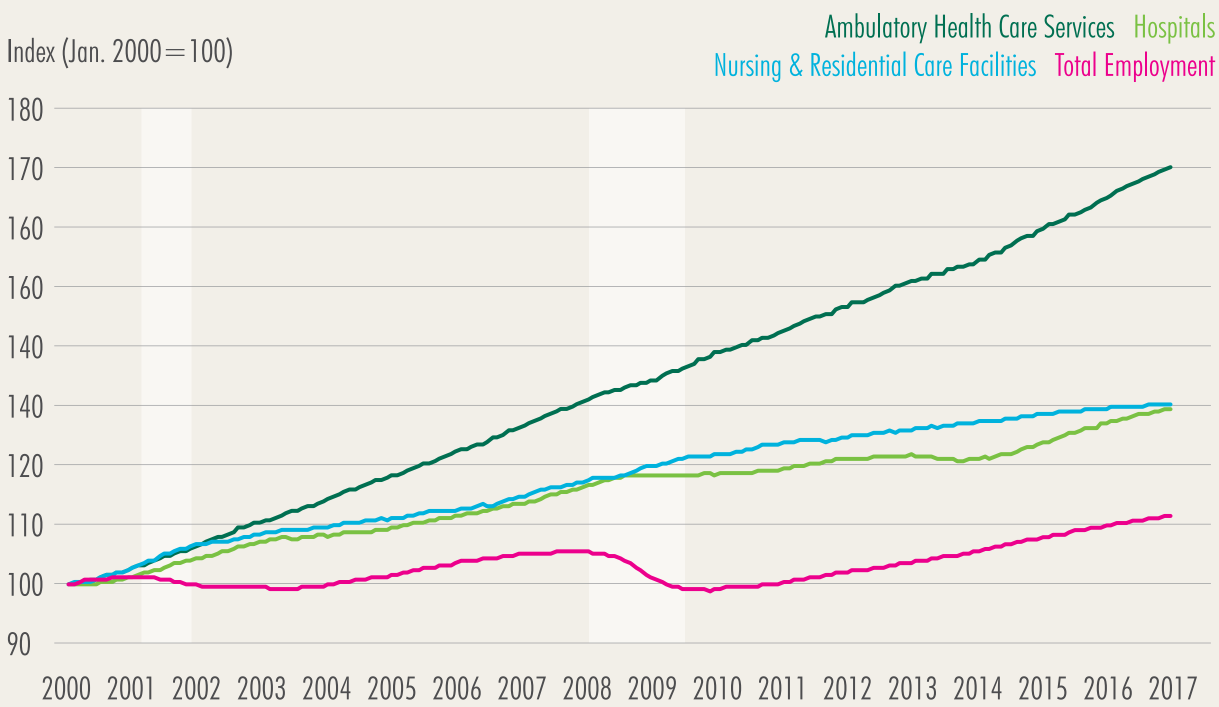
The population aged 65 and above is expected to increase by 1.7 million (3.3%) in 2018 and by 9.2 million (18.0%) over the next five years, driving strong short- and long-term demand for medical services. As markets with high concentrations of older residents (many in the North and Midwest) or with fast-growing overall and older populations (many in the South and West) are expected to benefit, this growth will generate opportunities for investment in medical office buildings throughout the U.S. For several years, investment in this product type has been increasing in tandem with the aging population, the insured population and the historical stability of medical office buildings relative to many other types of commercial real estate.

Although the direction of health care policy and of payment mechanisms remains uncertain as of this writing, rapid growth in the older population remains a significant tailwind for medical-office demand in the years ahead. Medical providers highly value locations near large patient populations and are willing to sign long-term leases for such properties—another attractive feature for investors.

Health care employment has exploded by 47% since 2000, compared with 12% for total employment, and has well-weathered the past two recessions (Figure 26). Employment in U.S. education and health services (EHS), of which health care represents nearly 70%, is projected to increase by 1.1% in 2018—a net gain of approximately 205,000 jobs. The sector is expected to add nearly 1 million jobs over the next five years—the second-highest total among the major employment sectors.

Employment trends also reflect the movement of health care services into lower-cost locations, including retail centers, to reduce costs and make these services more easily accessible to

FIGURE 26: EMPLOYMENT GROWTH INDEX, HEALTH CARE SECTORS VS. TOTAL U.S. EMPLOYMENT



Note: Latest data as of October 2017. All data are seasonally adjusted. Shaded bars represent recessionary periods.
Source: U.S. Bureau of Labor Statistics, November 2017.

patients. Employment in the ambulatory-care services sector, which includes outpatient care centers, medical and diagnostic laboratories and home-health-care services, has outpaced overall health care employment growth, increasing by 72% since 2000. With cost pressure likely to continue in 2018, so will the shift to lower-cost delivery settings, regardless of potential changes to health care policy.

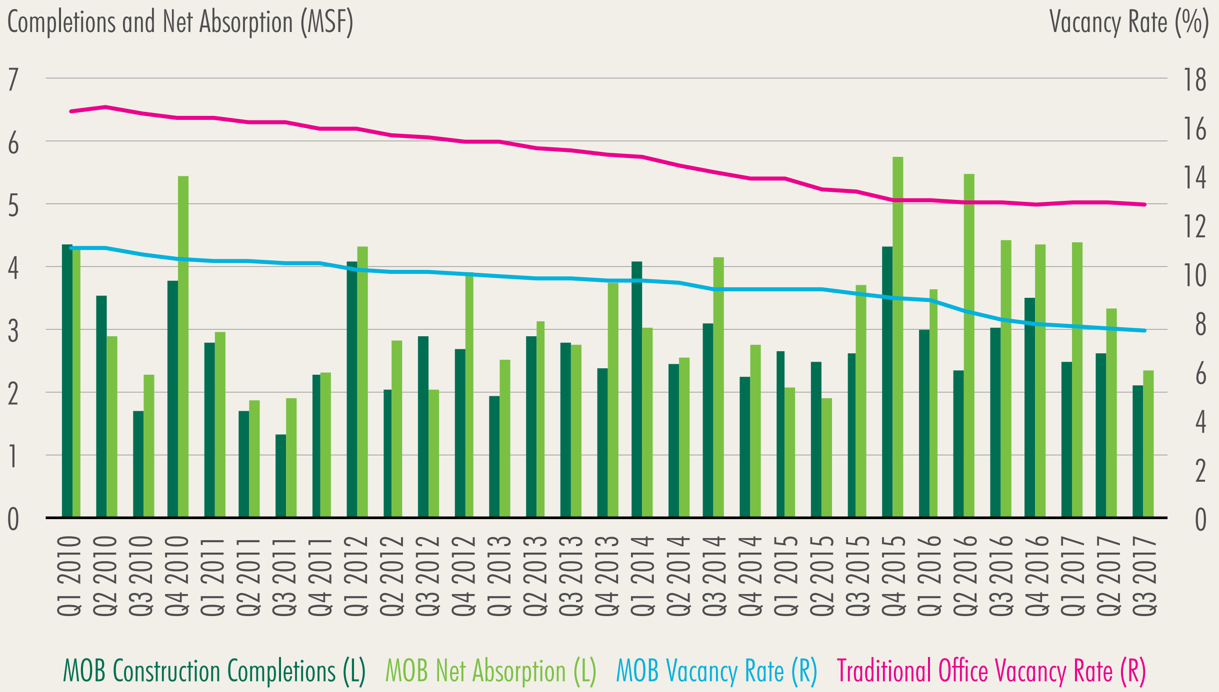
Cost pressure has also resulted from an increase in M&A activity in recent years, with large health care systems acquiring smaller physician groups and solo practices. Reimbursement and regulatory pressures, along with the high cost of acquiring and implementing new technologies, have contributed to this continuing trend. Modern, technologically-enabled medical office buildings capable of facilitating communication between multiple teams of providers will likely benefit from the continued growth of large health care systems. Buildings near large patient populations and that are well-equipped to offer specialized services (e.g., dialysis centers, ambulatory surgery centers, etc.) are also poised for strong user and investor interest.

TIGHT MARKET CONDITIONS ATTRACTING INVESTOR INTEREST

The medical office market has performed well in recent years, registering a lower peak vacancy rate than traditional office properties during the 2008 recession and showing a steady decline in vacancy since that time. Net absorption has outpaced new supply in 24 of the past 29 quarters, with particularly large imbalances since 2015 (Figure 27).

Gross asking rents have been stable, reflecting consistent user demand and long lease terms that limit tenant turnover. Deliveries of new medical space have also been low relative to pre-recession levels, and medical space currently under construction has decreased slightly from the recent Q2 2016 peak. This construction trend is expected to continue in 2018, with tenant demand supporting the amount of new supply and rents remaining stable.

FIGURE 27: U.S. MEDICAL OFFICE DEMAND AND SUPPLY



Source: CBRE Econometric Advisors, Q3 2017.

Investment trends reflect strong medical-office market fundamentals and a broadening pool of interested investors. Four-quarter trailing investment volume totaled more than $12 billion in both Q2 and Q3 2017, the highest levels since Real Capital Analytics began tracking medical office properties in 2002 (Figure 28). Several large portfolio trades have bolstered transaction volume in recent quarters, although individual-asset sales remained strong as well.

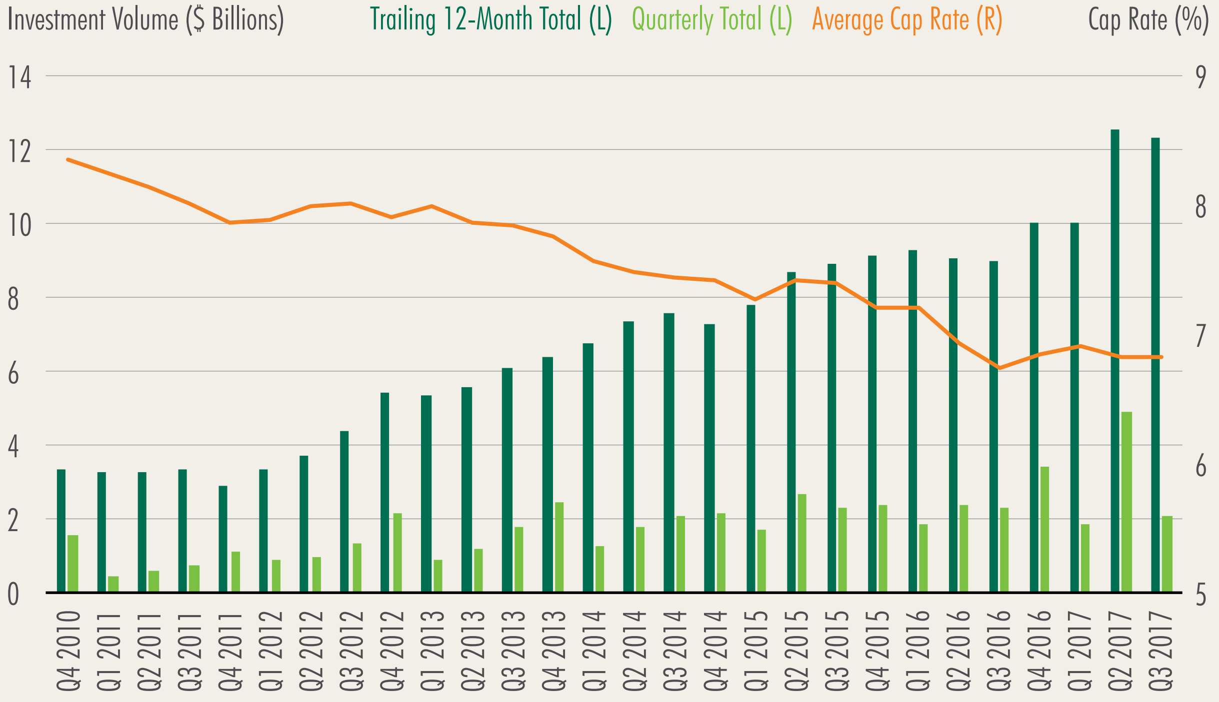
DEMOGRAPHICS OUTWEIGH POLICY UNCERTAINTY

While uncertainty about health care policy poses a risk to the medical office market, favorable demographic trends point to continued strong health care demand, regardless of any policy changes. The bigger risk may be from large health care systems continuing to acquire smaller physician groups and solo practices, potentially dampening demand for smaller medical office buildings and condos.

Changing reimbursement rate rules, including recent cuts for some off-campus services, could alter health care delivery mechanisms, including the current hub-and-spoke model of expanding into locations that are convenient for patients, thus impacting demand for off-campus medical office properties.

Overall, we expect demand for medical office buildings to grow, fueled by continued health care job growth, the aging population, tight market conditions and the relative recession-resistance of these properties. These factors will attract even more investors in the years ahead.

FIGURE 28: U.S. MEDICAL OFFICE INVESTMENT VOLUME AND CAP RATES



Note: Data includes only closed sales and excludes entity-level transactions.
Source: Real Capital Analytics, Q3 2017.

SENIORS HOUSING

MARKET FUNDAMENTALS TO IMPROVE IN 2018

The seniors housing market improved modestly in 2017 and is set to improve further in 2018, largely due to lower construction.

The market had seen moderate overbuilding for several years, especially in the assisted living and memory care segments. After peaking in early 2016, under-construction levels began falling and should further decrease in 2018. Construction starts also declined in the past two years, promising fewer completions in 2018.

Seniors housing demand should remain relatively healthy next year, given continued expansion of the U.S. economy and a healthy housing market—both key variables in the demand equation.

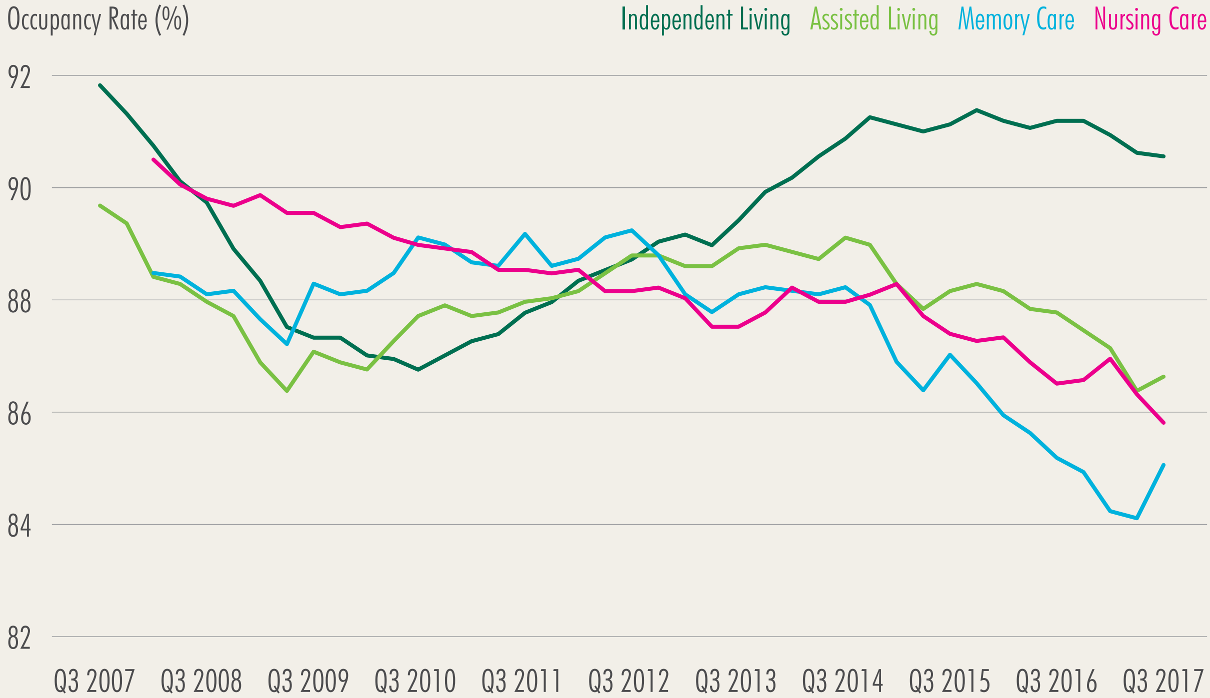
For the most part, the traditional segments of seniors housing—independent living, assisted living, memory care and nursing care—are not yet benefiting from baby boomer demand. However, the emerging "active adult" segment—focused on a younger demographic that includes baby boomers—is well positioned to attract new demand in 2018.

Seniors housing occupancy rates will likely edge up in the coming year, and rent growth should stay around the current 2.6% annual rate.

ACTIVE ADULT SEGMENT – SENIORS HOUSING'S EMERGING TOUR DE FORCE

"Active adult" housing—also referred to as "55+" or "age-restricted"—has not traditionally been part of the seniors housing sector because it usually does not offer food service, such as a central dining facility, which is a common feature of traditional seniors housing product.

FIGURE 29: SENIORS HOUSING OCCUPANCY TRENDS



Source: NIC MAP Data Service, CBRE Research, Q3 2017.

However, in years ahead, the active adult segment will play a larger role in the seniors housing industry, and will be an exciting segment to follow as it evolves. The definition of seniors housing and what it comprises continues to evolve, especially as product segmentation lines become less distinctive.

Many active adult communities offer services like those provided at independent living communities, but with an unbundled fee structure that allows residents to pay only for the services they want. Such services are also outsourced in active adult communities, thereby reducing operational and management challenges and making the segment more attractive to traditional multifamily investors and developers.

With 87 being the average age of assisted living residents, baby boomers are too young to provide significant demand for traditional seniors housing. For active adult communities, however, baby boomers are creating demand now, making this segment particularly appealing.

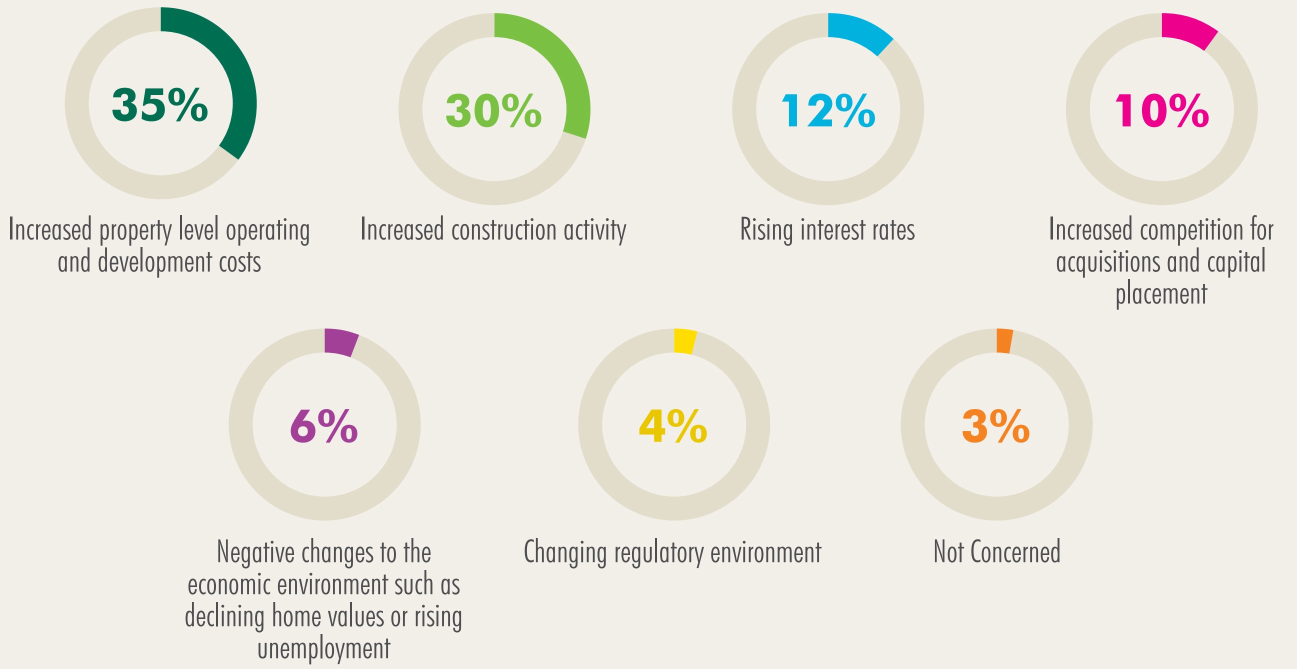
CBRE INVESTOR SURVEY REVEALS SUSTAINED INVESTOR APPETITE FOR 2018

Strong investor appetite for seniors housing was evident in CBRE's fall Seniors Housing & Care Investor Survey,[12] with 60% of respondents expecting to increase their exposure to seniors housing next year. Only 6% expected to decrease their exposure. But lower levels of new construction and concerns about rising operating expenses—especially from declining availability and rising wages—may curb investment volume in 2018.

Property-level operating costs eclipsed construction activity as investors' top concern in the fall survey. Construction activity (supply-demand fundamentals) was the second-highest concern.

[12]Forthcoming.

FIGURE 30: SENIORS HOUSING INVESTOR SURVEY - TOP CONCERNS



Source: CBRE, Q4 2017.

"Increased competition for acquisitions and capital placement" ranked third among the concerns. The widespread cap rate compression revealed in the fall survey reflected this competition for product.

For health care-focused assets, proposals for health care reform and legislative changes to Medicare and Medicaid generated considerable concern in 2017. These concerns will return to center stage in 2018 should reductions in Medicare and Medicaid funding be re-proposed. The nursing care segment will continue to seek new revenue sources, including expanded rehab facilities.

In 2018, seniors housing investors will favor the more lifestyle-focused segments over health care. Independent living was the top-ranked segment for investment opportunity in CBRE's fall investor survey. Active adult ranked third after assisted living, with 13% of survey respondents selecting it as the top segment—more than twice as many as had a year earlier.

SENIORS HOUSING BUYERS AND INVESTMENT MOMENTUM

In contrast to most other property types, there was a year-over-year increase in seniors housing acquisitions in 2017. Through October, acquisitions totaled $13 billion—up 8.6% from the same period in 2016. Based on investor sentiment and market fundamentals, we expect the volume of seniors housing acquisitions to rise modestly in 2018. If the amount of product coming to market is limited, however, the expected increase may not occur.

The dominance of portfolio sales is the other significant variable in seniors housing investment. In 2016 and 2017 combined, 61% of seniors housing investment activity occurred via portfolio sales (compared to 20% for conventional multifamily).

Institutional buyers likely will be more active in 2018. Institutional capital's interest in the seniors housing sector has been rising for a few years (due in part to higher yields) and its market share rose to about 31% in 2017 from 29% in 2016.

Foreign investors are another buyer group to watch in 2018. While cross-border capital represented only 5% of 2017 investment (based on the year-to-date total through October), it is expected to increase in the years ahead. In particular, we expect Chinese investors—the largest offshore capital source in 2017—to increase their investment in seniors housing over the near term.

CONTACTS

Spencer G. Levy
Head of Research & Senior Economic Advisor, Americas
+1 617 912 5236
spencer.levy@cbre.com
Twitter: @SpencerGLevy

Richard Barkham
Chief Economist, Global
+1 617 912 5215
richard.barkham@cbre.com
Twitter: @RichardJBarkham

Timothy H. Savage, Ph.D.
Senior Managing Economist
CBRE Econometric Advisors
+1 617 912 5265
tim.savage@cbre.com

Ian Anderson
Director, Research & Analysis
Americas Research
ian.anderson2@cbre.com
Twitter: @PennsylvaniaCRE

Melina Cordero
Head of Retail Research, Americas
melina.cordero@cbre.com
Twitter: @melinascordero

Jack Corgel
Managing Director
CBRE Hotels' Americas Research
jack.corgel@cbre.com

Andrea Cross
Head of Office Research, Americas
andrea.cross@cbre.com
Twitter: @AndreaBCross

David Egan
Global Head of Industrial Research
david.egan2@cbre.com
Twitter: @Egan2David

Alex Krasikov
Economist
CBRE Econometric Advisors
alex.krasikov@cbre.com

Jamie Lane
Senior Economist
CBRE Hotels' Americas Research
jamie.lane@cbre.com
Twitter: @jamie_lane

Wei Luo
Analyst
Americas Research
wei.luo@cbre.com
Twitter: @WeiVLuo

Jeanette I. Rice, CRE
Head of Multifamily Research, Americas
jeanette.rice@cbre.com
Twitter: @RiceJeanette

Jing Ren, Ph.D.
Economist
CBRE Econometric Advisors
jing.ren@cbre.com

Maximilian Saia
Economist
CBRE Econometric Advisors
maximilian.saia@cbre.com
Twitter: @MaxXSaia

Matt Vance
Director, Research & Analysis, Americas Research
Economist, CBRE Econometric Advisors
matthew.vance@cbre.com
Twitter: @vancenomics

Jeffrey West
Director of Data Center Research & Analysis
Americas Research
jeff.west@cbre.com
Twitter: @jeffwestcbre

Julie Whelan
Head of Occupier Research, Americas
julie.whelan@cbre.com
Twitter: @JulieWhelanCBRE

To learn more about CBRE Research, or to access additional research reports, please visit the Global Research Gateway at www.cbre.com/research.

Additional U.S. Research from CBRE can be found here.

CBRE