

INDEPENDENT MARKET REVIEW

by Jones Lang LaSalle (JLL), 31 December 2016

U.S. economy overview

The U.S. economy continued to exhibit slow growth at year-end 2016, with GDP expanding by 1.9 percent in the fourth quarter. Although slightly behind the 2.1 percent growth rate witnessed over the past seven years during the post-2009 expansion, favorable indicators emerged throughout other areas of the economy. The labor market remains in positive territory, adding 2.2 million jobs over the year with unemployment falling to 4.7 percent. Consumer confidence jumped to 113.7 points, bringing it to pre-recession levels, while unemployment claims remain below the 275,000-per-week threshold with little sign of upward movement. All of these point to greater demand for goods and services as well as the need for employers to expand headcount, ultimately leading to occupancy growth in office space.

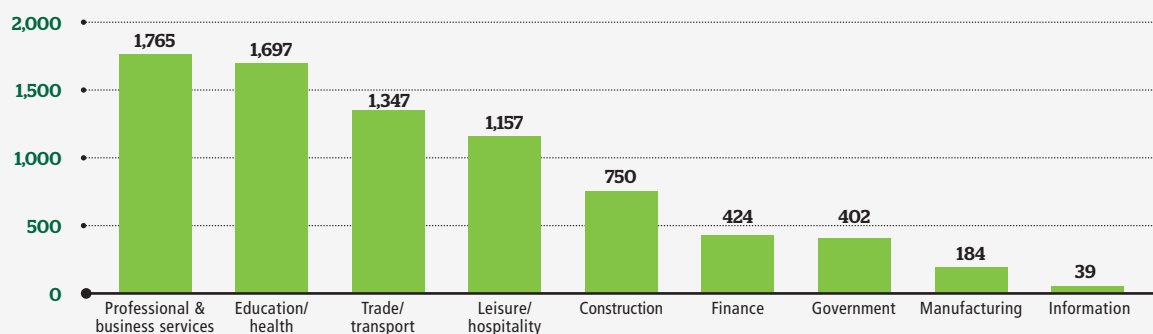
Consumer confidence climbed to a 13-year high in December 2016, suggesting that consumer optimism toward business conditions, personal finances and employment are improving. The strengthening dollar and a recent rise in the U.S. 10-year Treasury rate provide other indicators of higher growth expectations. The Federal Reserve reaffirmed this optimism with a 25-basis-point increase in the overnight lending rate in December and provided targeted guidance on three additional rate hikes throughout 2017, signifying the central bank's confidence in the improving U.S. economy.

Although rising interest rates can be seen as a sign of higher growth expectations, they will also raise borrowing costs for developers and acquirers of real estate. The office market will need to demonstrate a commensurate increase in rents, or decrease in spreads, relative to rising interest rates to maintain current valuations. Additionally, as the U.S. economy nears full employment in most primary and secondary metro areas, it will become more difficult for employers to hire and in turn sustain the level of office absorption.

In the short term, we expect stable growth across most segments of the economy, albeit potentially slower than in 2014 and 2015 as a result of minimal labor market slack and an uptick in inflation. Rising wages will keep consumer spending afloat and expanding companies will need to invest further as competition for talent further intensifies. From the office side, a slew of new supply will come to the market in 2017 and 2018, increasing options for tenants in a time of slowing occupancy growth, leading to plateauing rent growth and ultimately a correction in the leasing market as migrating tenants and landlords find that space given back upon relocation or consolidation becomes more difficult to backfill. Bifurcation between assets with efficiency and amenities and those that lack such features will also have an effect on rents and sales pricing as well as resilience as the cycle continues.

Professional services, health and education lead job creation

36-month employment growth (thousands)



Labor market showing gains across most industries

Employment growth continues across the majority of industries nationally. Over the course of the recovery, the U.S. economy has added 15.4 million new jobs, with employment now 4.8 percent above its pre-recession peak. Of jobs created over the past three years, 28.7 percent were in the office-using sectors of professional and business services (PBS), financial activities and information, a positive sign for the office market. Additionally, the less-cyclical segments of education and health have also been major contributors to growth, benefiting lab, R&D and flex space owners.

At the market level, industry hubs for tech, life sciences and other creative industries as well as diversified, mid-sized geographies are recording the fastest gains in employment and inbound migration.

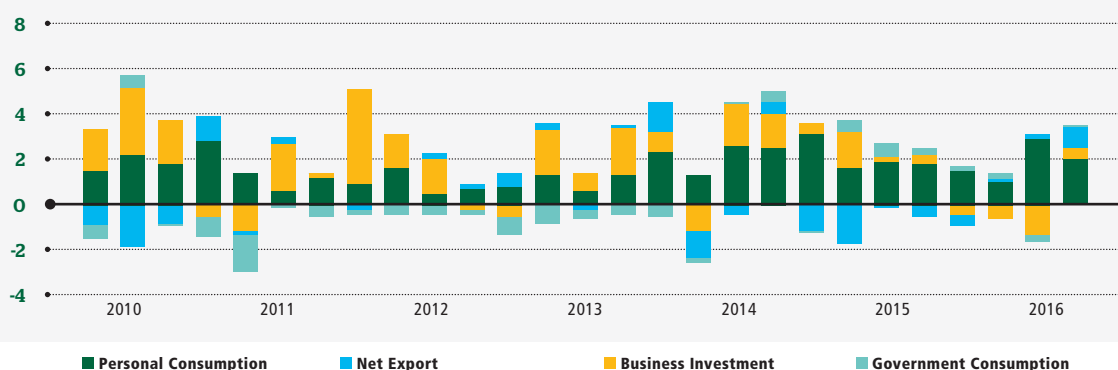
GDP seeing a rebound, but business investment is still unstable

Growth during the fourth quarter of 2016 was estimated at 1.9 percent at annual rates, with real GDP over the year rising at the same level. Year-over-year gains have hovered around the 1.7 to 2.3-percent mark, relatively stable over recent

quarters. However, growth has been almost entirely driven by personal consumption expenditures, whose contribution over the past three years averages 2.0 percent per quarter at annual rates, compared to 0.1 percent for the rest of the economy. Of note was the prolonged drop-off in business investment that coincided with a flatlining in corporate profits, although Q4 2016 showed a return to growth, expanding at a rate similar to personal consumption expenditures and up from the rebound recorded during Q3. As a result, consumer confidence will be critical to maintaining GDP growth in 2017 and 2018. With the consumer confidence index surpassing 113 points in December, we expect that this trend will continue over the coming quarters.

Personal consumption driving vast majority of GDP growth

Contribution to growth (%)



Other indicators are also upbeat, paving the way for further gains

Employment and GDP are not the only metrics seeing positive momentum. Indicators such as jobless claims, which hit a 40-year low in early December, as well as consumer confidence, home price growth and manufacturer sentiment are all rising at varying rates, aligning for diversified economic growth to benefit markets across the United States. As is common at this point in the cycle, upward momentum in most sectors is providing a boost for major markets without a singular key driving office-using industry, such as Los Angeles, Chicago, Atlanta, Philadelphia, Phoenix and Miami. For the U.S. office market as a whole, this will provide for further demand for talent to drive expansion and take-up of space, even in more industry-exposed geographies.

U.S. office overview

The U.S. office market ended 2016 on a muted note: net absorption of 6.5 million square feet in Q4 fell well below the more than 10 million square feet of occupancy growth registered in previous quarters, while annual absorption of 41.8 million square feet was 24.7 percent below 2015 volumes. Similarly, quarterly rent growth was just 0.1 percent, although increases earlier in the year resulted in a healthy 12-month change of 3.6 percent. On the back of favorable fundamentals and tenant demand for quality and efficient space, development activity rose to a cycle high of 110.5 million square feet and is now above the previous peak recorded in 2017. 46.7 million square feet of deliveries and slower absorption kept vacancy steady at 14.5 percent; little change in recent quarters indicates that vacancy has likely reached its cyclical low.

Slower leasing a contributor to below-average absorption

A combination of minimal large blocks in desirable assets, a cooling tech industry with more volatility in venture capital flows and pre-election uncertainty all contributed to slower leasing velocity in 2016: compared to 2015, leasing volume declined by 6.6 percent. Of note was the 43-percent decrease in leases larger than 500,000 square feet as large blocks of space have dwindled, particularly in existing Trophy and Class A assets.

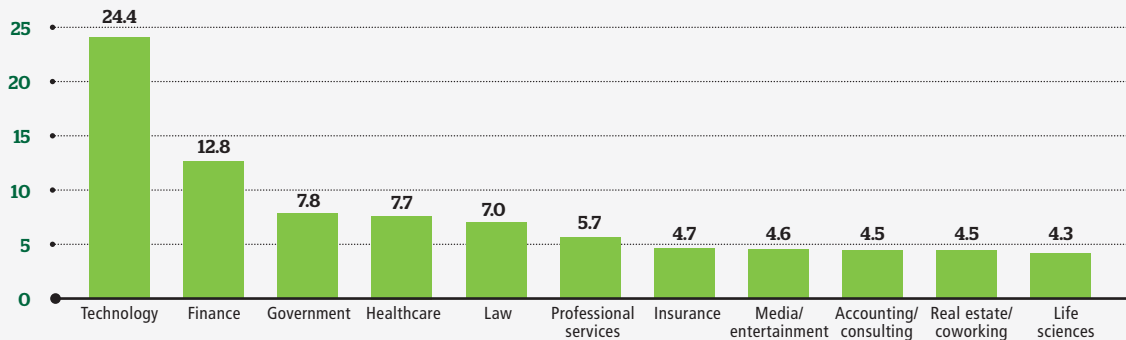
Despite this slowing, the leasing market remains healthy. 46.4 percent of leases by square footage in Q4 2016 represented some form of net growth, while only 9.8 percent were of a contractionary nature. Tech continues to fuel activity, even as the industry sees employment growth slow from the more than 6.0 percent recorded in 2014 and 2015 to hovering around 4.5 percent in annual terms in recent months. Traditional users such as finance, law and numerous components of professional services also took on significant amounts of space, but have been more exposed to structural changes in the workplace and rightsizing initiatives across markets within these industries, which has kept leasing activity more muted.

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Technology was by far the leader in leasing in 2016

Jobs created in 2016 (millions)



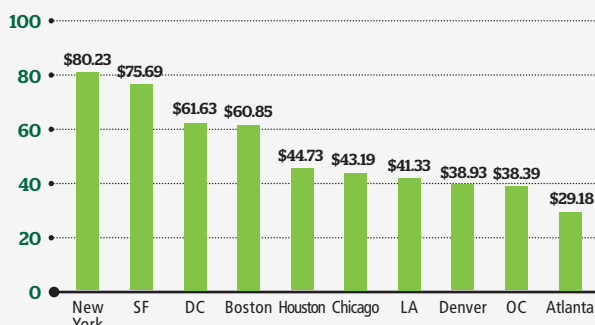
Absorption is not uniform; many submarkets are growing fast

Although the U.S. as a whole witnessed slower occupancy growth during 2016, absorption was not uniform. Many industry anchored and amenitized submarkets registered sustained absorption from organic growth, such as South of Market (San Francisco), River North (Chicago) and South Valley (Salt Lake City), where more than 350,000 square feet of occupancy growth each brought down vacancy to below the 8-percent threshold.

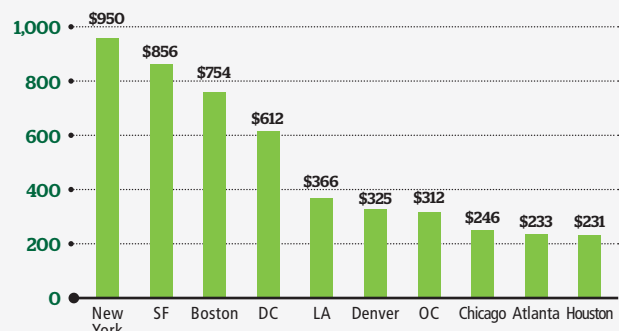
New supply is also boosting absorption in many geographies: Sunnyvale (Silicon Valley), Tempe (Phoenix), Lake Union (Seattle), University City (Philadelphia) and Hollywood (Los Angeles) recorded a combined 3.9 million square feet of occupancy growth on the back of significant quantities of new supply, providing some additional options for tenants as well as accelerating rent growth as demand for space in these submarkets has yet to subside and space coming to the market commands a premium.

Absorption has also demonstrated marked variance based on building class. Flight-to-quality, consolidation from large users and the increasing rate of deliveries are propelling Class A occupancy growth in both CBDs and suburbs far beyond the rest of the market. Since Q1 2010, CBD and suburban absorption has cumulatively totaled 8.5 and 11.4 percent of inventory in contrast to the 5.1 percent of inventory for Classes B and C combined. In turn, this is placing greater pressure on rents for quality space and keeping the development pipeline active, even as a significant amount of vacancy exists in Class B and C properties.

CBD Class A rents (\$ p.s.f.)



CBD Class A pricing (\$ p.s.f.)



Rent growth and vacancy will begin to shift as new supply delivers

The construction pipeline rose once again during the fourth quarter and now stands at 110.5 million square feet. Previously protracted as a result of oversupply in the recession and a slow start to the economic and real-estate recovery in most markets, activity has accelerated due to the backlog of demand from tenants and a lack of large blocks of quality space in prime submarkets and micromarkets. Aging office inventory in many major CBDs as well as traditional users' drives to efficiency means that new supply is also one of the most achievable ways to contain real estate costs, further increasing demand for new construction.

Although development activity intensified over the course of 2016, oversupply is likely not as severe as it was during the previous cycle. A preleasing rate of 50.4 percent combined with a lower rate of construction as a percentage of inventory, as well as a significant amount of preleasing coming from organic growth rather than purely relocations will mean a slower and softer period of market correction upon delivery.

In the short term, rents are likely to rise as asking rents for new supply average \$48.73 per square foot, a 50.4 percent premium compared to the overall market. In primary markets, new construction is routinely asking more than \$75 per square foot, with Trophy properties exceeding \$100 per square foot in multiple submarkets.

As relocations and consolidations into new space increase, the amount of sublease vacancy is also critical to the direction of the market. For the second quarter in a row, the national office market saw an increase in sublease vacancy, which now stands at 1.2 percent. 17.3 percent of new quarterly sublease vacancy during the fourth quarter came from the CBD Class A segment, which is the first to see significant amounts of new construction delivery.

Atlanta (Midtown)

Local economy

Atlanta's economy consistently ranks among the most diverse in the country, with particular strengths in professional services, finance, logistics, entertainment and health, with an emerging tech presence as well. The region's status as a key air and freight rail hub, low costs of living and doing business and education and health institutions all contribute to its sustained growth and target for corporate relocations and expansion.

Traditionally cyclical, it is currently one of the fastest-growing major metropolitan areas and has posted 475,900 net new jobs since 2010, while its population has surged by 8.0 percent to 5.7 million over the same time period. Unemployment has declined to 4.8 percent, slightly above other large geographies and indicative of some slack left in the local labor market before reaching effective full employment.

Office market trends

After recording more than 3.2 million square feet of occupancy losses during the recession and a protracted recovery, Atlanta has absorbed 6.5 million square feet of space, bringing vacancy down by 410 basis points to 16.9 percent. In line with national trends, the area's urban core has been one of its strongest and most in-demand locations for tenant activity, expansion and migration.

Midtown, located between the primary financial district of Buckhead and Downtown Atlanta and at the heart of the region's public transportation network, has been one of the largest beneficiaries of this migration. As the office market rebalanced from office oversupply, Midtown began to undergo a substantial residential boom. More than 4,500 new residential units are currently under construction with a proposed pipeline exceeding 3,600 units.

This rapid expansion in residential population, coupled with anchors such as Georgia Tech, has attracted corporations such as NCR – which is building its new headquarters in the submarket and relocating from the city's northeastern suburbs – and Honeywell to take advantage of its young, educated workforce. Midtown's fringe also offers one of the few areas of creative space favorable for tenants in Atlanta's burgeoning media and tech industries. Jamestown's recently refurbished Ponce City Market, the new headquarters of MailChimp, stands as an example of the success of adaptive reuse for office and retail tenants.

Sales activity within Midtown has been spurred not only by its strong leasing-market fundamentals and slight per-square-foot discount compared to Buckhead, but also Atlanta's overall increase in investment as barriers to entry in gateway geographies has caused institutional and other domestic buyers to seek better yields. The sale of One Atlantic Center – the fourth-largest Trophy asset in Atlanta – during the fourth quarter of 2016 for \$318 million demonstrates investor confidence in the submarket.

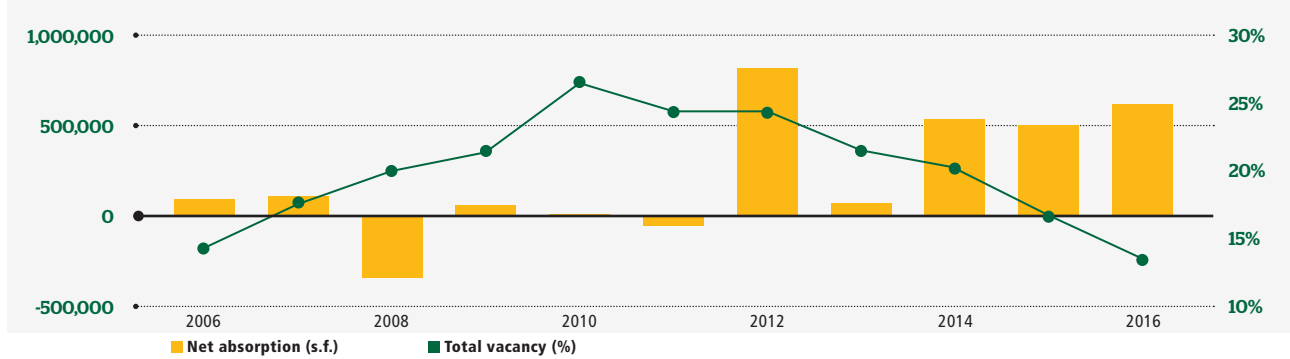
Outlook

Midtown will continue to be one of the most active submarkets in Atlanta in 2017 and into 2018, although its firm placement in the peaking phase of the rent cycle indicates potential plateaus in rent and occupancy growth. However, a wave of residential deliveries over the next two years will likely entice further organic and inbound expansion from office occupiers within the submarket. A concentration of top-quality assets, locational advantage and access by public transportation will keep rents, and in turn sales pricing, elevated compared to the metro area as a whole.

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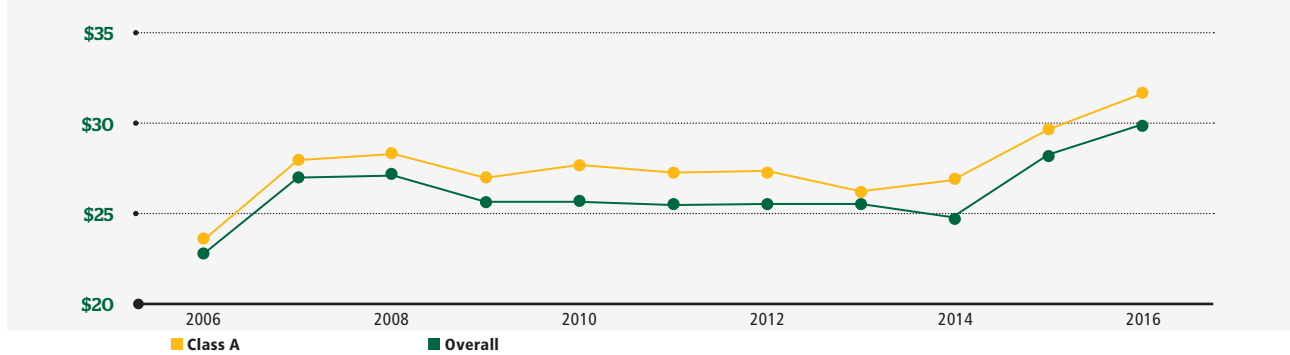
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2.5 m.s.f. of absorption since 2012 has nearly halved vacancy



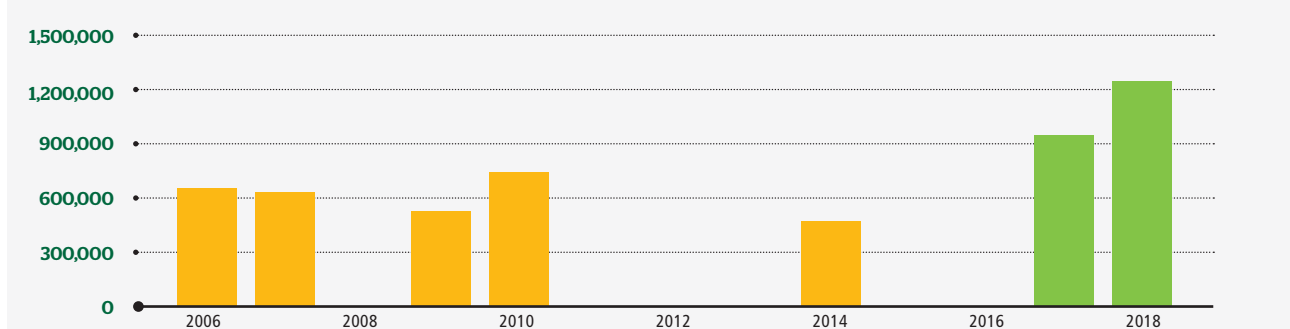
High demand and lack of new supply sharply increasing rents

Asking rent (\$ p.s.f.)



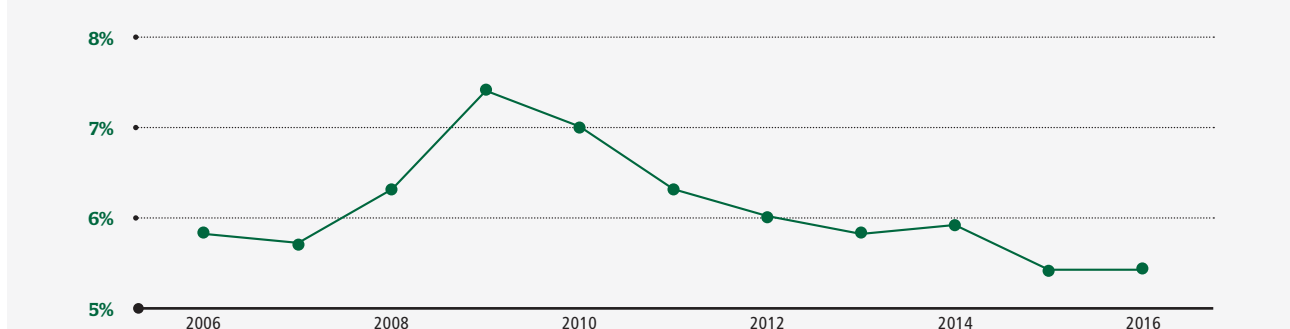
2017 and 2018 will see a wave of new supply delivered

Completions (s.f.)



Cap rate compression driven by solid leasing fundamentals

CBD Class A cap rate (%)



Los Angeles (Downtown)

Local economy

One of the most diversified major economies in the United States, Los Angeles has seen growth mirror national trends over the course of the current cycle. After a deeper-than-average recession with double-digit unemployment, it has rebounded and is now one of the largest contributors to job and office-market growth nationally. Job growth of 1.6 percent over the year is in line with the U.S. average, while unemployment has fallen to 5.1 percent, only 50 basis points above the national figure of 4.6 percent.

Traditionally powered by entertainment, media, professional services, law and finance, Los Angeles is currently witnessing a very strong boom in the creative industries, not just in film and television production but also content creation, tech and advanced engineering and research. Its tech cluster, known as Silicon Beach, has emerged as one of the most high-profile hubs of innovation in the world and has moved beyond a lower-cost alternative to the Bay Area to become a recognized concentration of talent and output that ties together tech with media, communications and entertainment.

Office market trends

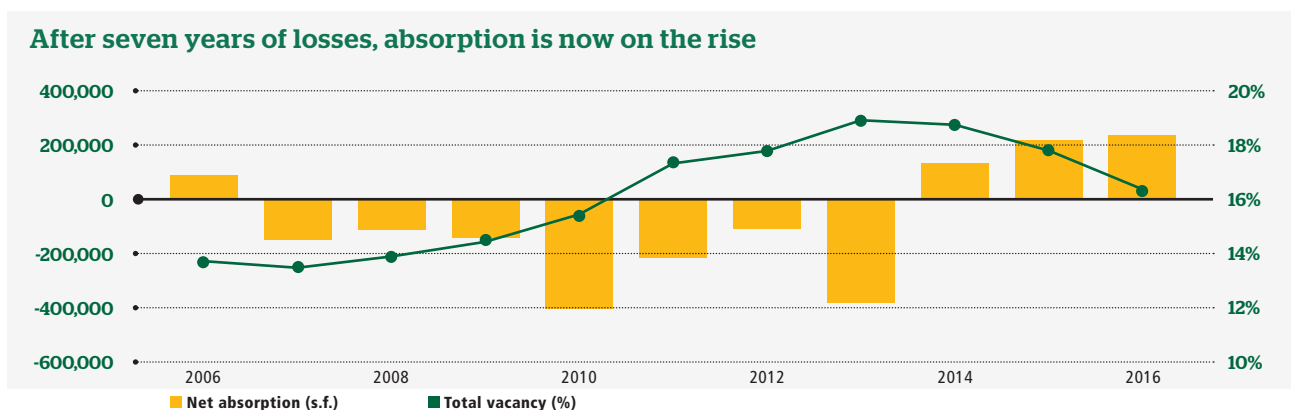
Over the course of the current cycle, Los Angeles' office market has been notable for growth being concentrated in emerging micromarkets and creative-style buildings. In 2016, more than one quarter of Class A occupancy growth took place in the Westside region, resulting in submarkets such as Playa Vista, Beverly Hills, Santa Monica and West Hollywood recording significant rent and capital value growth. High-profile tenants such as Google, Yahoo, Netflix and Viacom have all made notable relocations to creative hubs throughout Los Angeles, with little sign of slowing.

Although also growing, Downtown's office performance has been eclipsed by the submarket's multifamily and retail development boom. Preferences for urban living, available plots for large-scale redevelopment and the growth of peripheral micromarkets such as the Arts District have helped to drive the construction of more than 11,000 units and an even larger proposed pipeline. This rapid increase in population, the submarket's status as the hub of the region's growing public transportation network and wealth of creative properties, has attracted the attention of tenants such as WeWork.

Investors are increasingly recognizing Los Angeles' underlying strengths and the region's affordability as a gateway market. Downtown Los Angeles' investment profile is dominated by Brookfield, whose purchase of MPG's \$2.1-billion portfolio gave them control of 27.9 percent of Downtown's inventory. Investor appetite for CBD product has remained strong in 2016, with \$652.1 million in Class A product trading hands at an average of \$359 per square foot, providing advantageous pricing in an increasingly expensive market. Yield compression for this asset class has also been noticeable; investors can expect core cap rate of roughly 4.5 percent.

Outlook

Downtown Los Angeles will benefit from the broad-based growth seen throughout the region and a structural shift across property sectors to more urban, mixed-use locations. The recent extension of the Expo Line to Santa Monica, which connects Downtown to a number of major employment and residential hubs, as well as the passage of Measure M in November to increase funding for further transportation expansion, will bode well for Downtown through greater access and the ability for tenants to draw from a wider and more diverse talent pool.

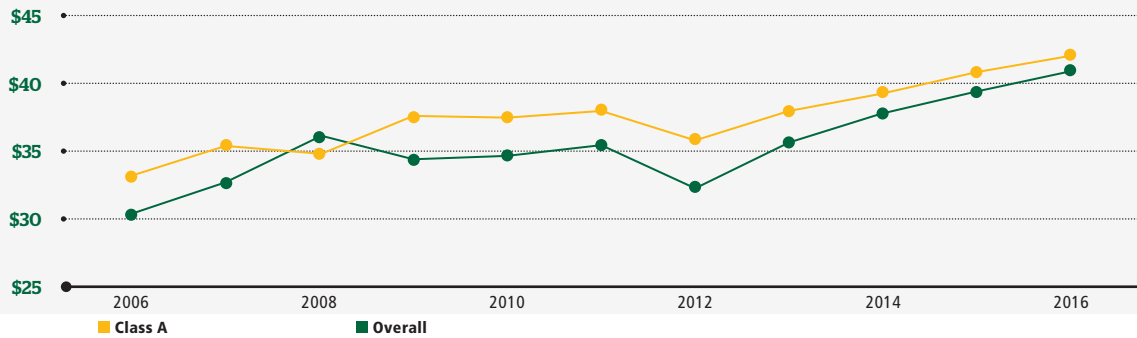


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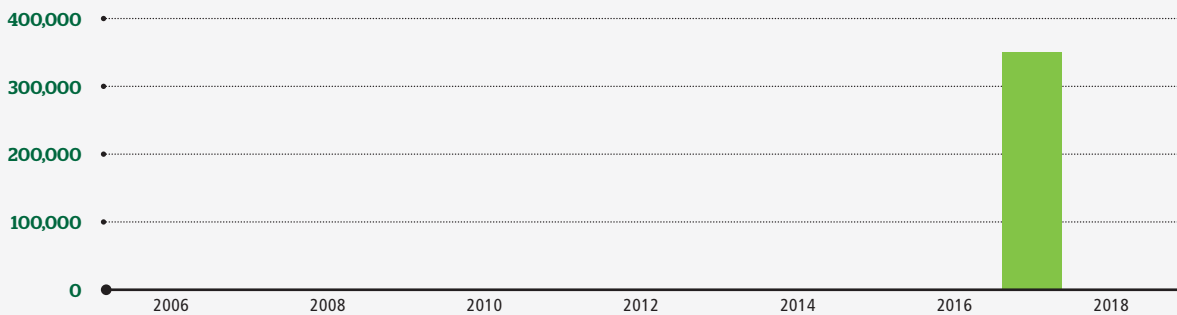
Growth in both Class A and overall CBD rents sustained

Asking rent (\$ p.s.f.)



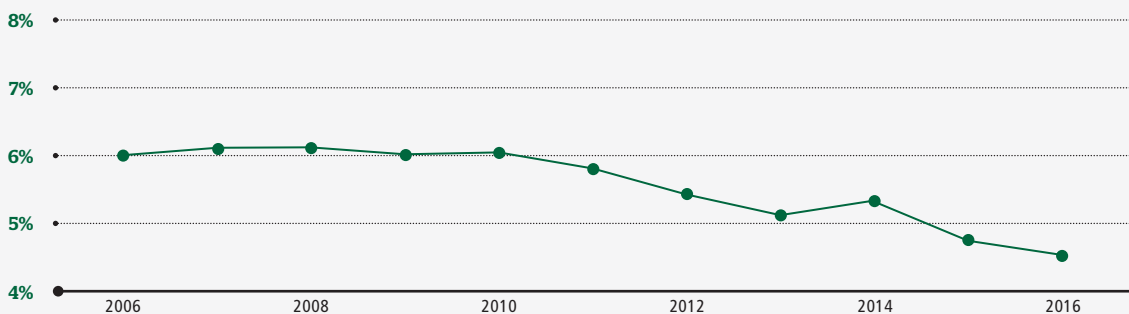
The Wilshire Grand is so far the only new supply this cycle

Completions (s.f.)



Yields are falling as pricing rises and transactions slow

CBD Class A cap rate (%)



Orange County (Irvine)

Local economy

After being hit hard during the recession, Orange County has made a rapid comeback to be a leading mid-sized office market nationally. The nearly 200,000 jobs lost during the recession have all been recovered and current employment is 4.3 percent above its previous peak in 2006. With five-year population growth of 5.3 percent, however, Orange County is seeing slower increases than peer Sun Belt and Western geographies such as Denver, Austin, Nashville, Charlotte and Raleigh-Durham.

Annual gains in professional services (+3.6 percent), education and health (+4.5 percent) and construction (+5.7 percent) all exceed the national average as economic growth comes from a variety of industries. At the same time, Orange County's traditional growth areas of finance, particularly mortgage lending, and professional services have been complemented this cycle by an increase in tech, aerospace and specialized engineering and design, improving macroeconomic resilience and driving job growth.

Office market trends

Orange County's office market tends to follow the national economic cycle relatively closely. From 2007 to 2011, the market saw occupancy losses totaling nearly 6.4 million square feet, driving vacancy past 20 percent and rents down 27.5 percent. Since then, 7.8 million square feet of net absorption has halved vacancy to 11.3 percent, while demand and minimal development have enabled rents to reach their pre-recession peak.

The market's post-recession recovery has not been uniform, however. The Airport Area, of which Irvine is a core component, has led Orange County by a significant margin, with rents achieving a record \$36.72 per square foot. Sub-regional vacancy of 10.9 percent, falling to 9.8 percent for Irvine alone, has placed significant pressure on rents, which are up 5.2 percent over the year. Unlike in many suburban geographies, organic Class B tightening has pushed up rents in this segment by 11.2 percent over the year, far in excess of the rest of Orange County.

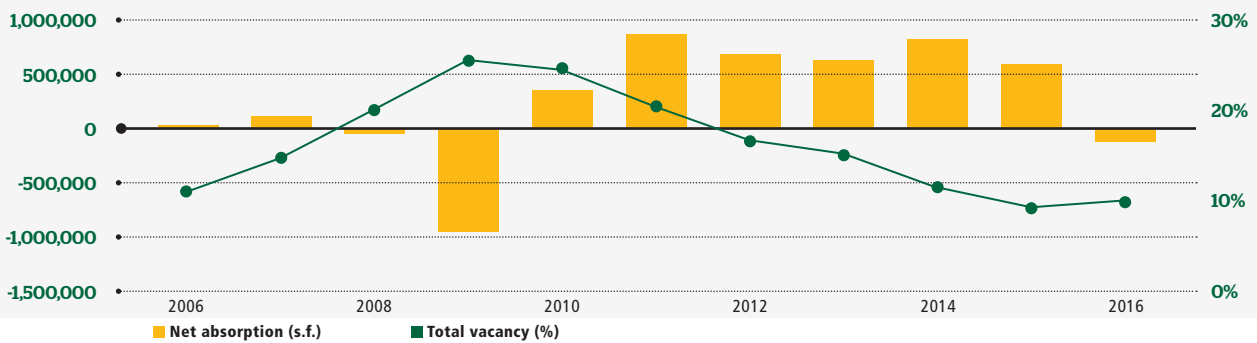
For the first time since the mid-2000s, leasing market fundamentals have made new construction viable. Development is largely concentrated in the core of Irvine, with Trammell Crow's Boardwalk development the most visible. Although it has yet to secure an anchor tenant, trends in flight-to-quality and tenants' desire for new, efficient space will likely drive relocations. Outside of the Irvine core, the only other parts of the county to see meaningful activity are the Spectrum and Newport Center submarkets.

Owners of quality assets have sought to capitalize on strong leasing market performance and spillover from cost-conscious investors seeking better yields, leading to \$963 million in sales in the Airport Area, of which \$822 million took place in Irvine. Pricing for Class A assets in the submarket now averages \$390 per square foot, with cap rate compression down to roughly 4.5 percent for Class A and 5.3 percent overall, placing Irvine as one of the top suburban investment markets outside of gateway geographies.

Outlook

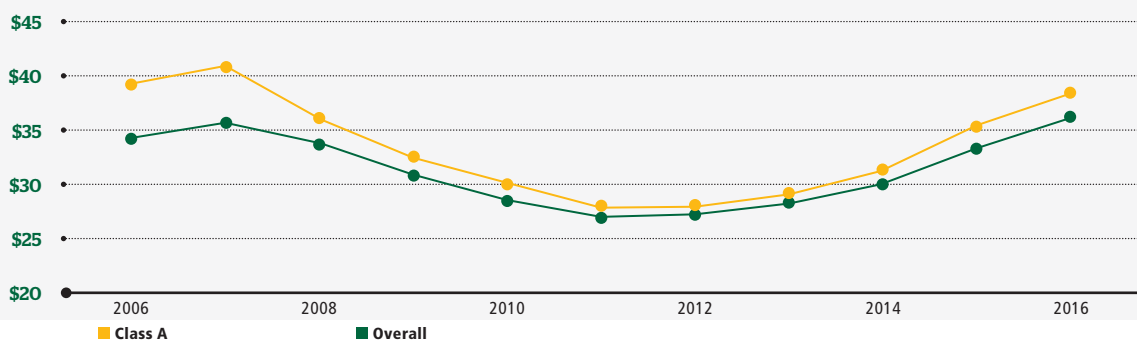
Over the coming quarters, we expect that Orange County will continue to record positive net absorption on the back of broad-based tenant demand and economic growth. New construction in high-demand areas will provide options as large blocks dwindle, but at a premium. Orange County remains susceptible to sharp downturns due to a heavy exposure to the financial sectors, although a lack of overbuilding during the current cycle and momentum in emerging industries will help to buffer the market.

Despite occupancy loss, vacancy remains below 10 percent



Irvine rents not at previous peak in contrast to Airport Area

Asking rent (\$ p.s.f.)

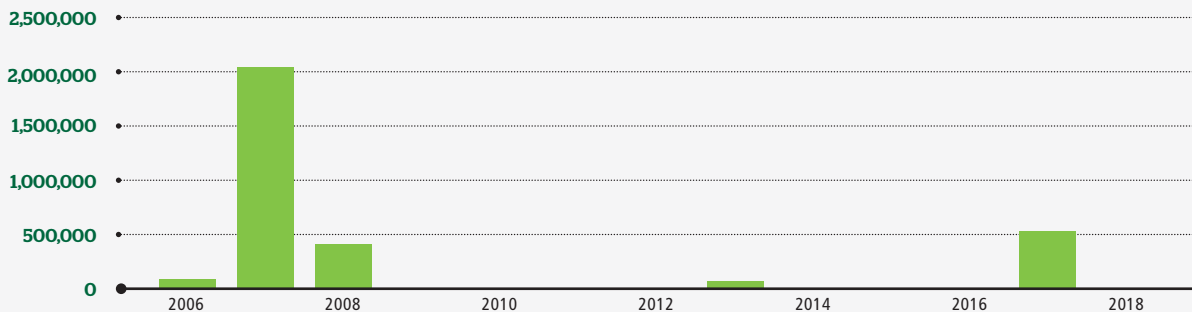


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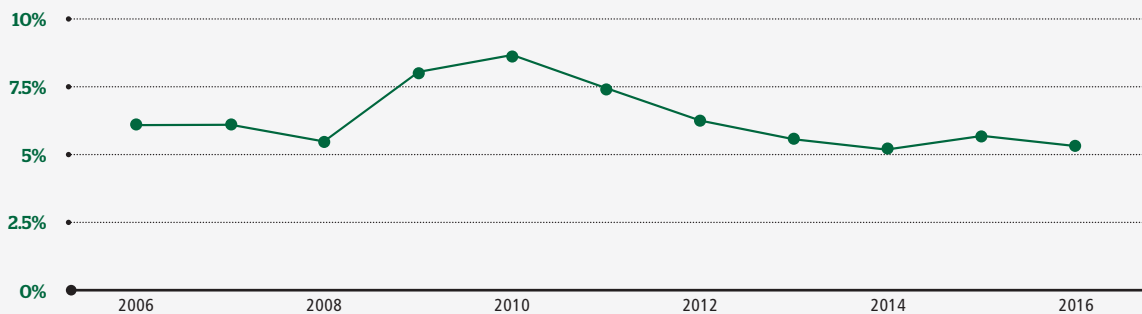
After a prolonged slowdown, development is coming back

Completions (s.f.)



Cap rates are nearing record lows in the low 5-percent range

CBD Class A cap rate (%)



Development outlook

Atlanta (Midtown)

Atlanta's development activity has been restrained over the course of the current cycle: current market-wide volumes of 4.9 million square feet are far below their pre-recession peak of more than 9.0 million square feet, largely due to oversupply after the previous cycle and a protracted recovery. Over the past year, market-wide construction has jumped by more than two million square feet in response to a dwindling supply of large, quality blocks in major employment hubs and accelerating rent growth. Midtown leads development by a significant margin due to its walkable street grid, proximity to educational institutions, multifamily development boom and public transportation access. Despite seeing nearly 2.3 million square feet of development in the submarket, high levels of preleasing, organic growth from inbound migration and expansion and a diverse set of drivers will likely buffer against future oversupply. These trends are also visible at the market level: net absorption powered by positive domestic migration figures and sustained job growth should enable the market to absorb available delivered space and backfill space from relocating tenants.

Building	Developer	Spec/BTS	Completion	NLA (s.f.)	Anchor
Coda	Portman	Speculative	2018	860,500	Georgia Tech
NCR HQ	Cousins	BTS	2017	485,000	NCR
725 Ponce de Leon Ave NE	New City	Speculative	2018	421,000	-
715 Peachtree Street NE	Carter	Speculative	2017	353,010	Honeywell, Regus
Stockyards	Federal/Westbridge	Speculative	2017	136,000	Fitzgerald & Co.

Los Angeles (Downtown)

For the first time since the 1970s and 1980s, Downtown Los Angeles is seeing significant office development activity. The Wilshire Grand, which contains a 356,141-square-foot office component, will deliver in March 2017 without an anchor, which will lead to a slight increase in the submarket's vacancy rate. Over the long term, however, increasing tenant interest in Downtown as well as other creative hubs such as Playa Vista, Santa Monica, Hollywood and Culver City will likely lead to

additional tenants relocating to or expanding in the submarket, reducing the impact of available new supply. This movement has been most apparent in the Westside and Mid-Wilshire this cycle, although recent relocations by high-profile tenants including Warner Music Group and WeWork have been leading the more than 700,000 square feet leased by tenants new to the CBD. This flow is expected to increase as cost and supply pressures in established submarkets increase, countering potential rightsizing from legal and financial tenants already in Downtown LA.

Building	Developer	Spec/BTS	Completion	NLA (s.f.)	Anchor
Wilshire Grand	Korean Air	Speculative	2017	356,141	-

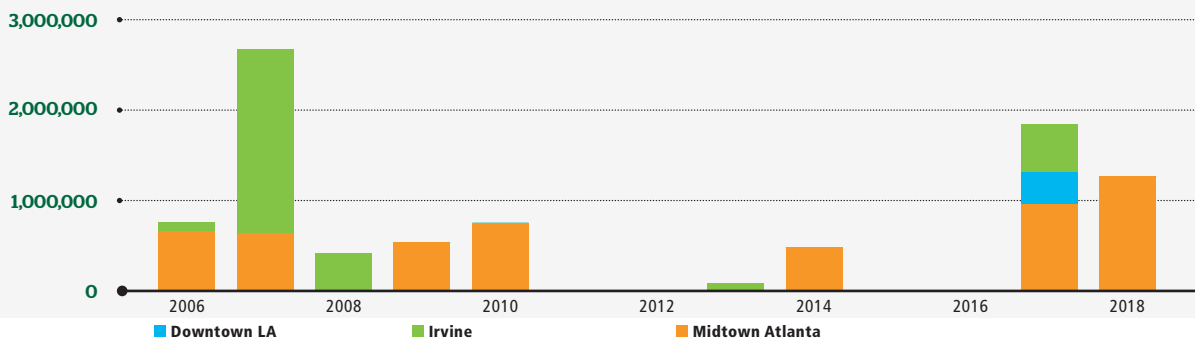
Orange County (Irvine)

Orange County was one of the hardest-hit markets from oversupply during the recession: between 2007 and 2009, 4.3 million square feet of office product came to the market, while Orange County’s exposure to the mortgage lending, professional services, trade and construction industries all combined to nearly double vacancy to a peak of 20.2 percent in 2010, from which it has slowly declined back to its 2007 low of 11.3 percent. Irvine was no exception to this trend, recording a peak vacancy rate of 25.0 percent in 2009. Since then, the Orange County market as a whole has cooled and, despite consistent job and occupancy growth, is building only half of its previous high of 3.8 million square feet under construction. Of the 1.9 million square feet underway, 27.8 percent is located in Irvine with no preleasing. The lack of large quality blocks remaining on the market and high-growth industries preferring to locate in Irvine and similar submarkets will likely lead to the take-up of this space. The remainder of the market, however, is not expected to see a sharp upturn in vacancy since no supply is expected to deliver in the near-future in most submarkets.

Building	Developer	Spec/BTS	Completion	NLA (s.f.)	Anchor
The Boardwalk	Trammell Crow	Speculative	2017	537,224	-

Annual completions by submarket

Completions (s.f.)



Annual completions by market

Completions (s.f.)

