

# *Investment Outlook*

United States | Q4 2016



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#### OFFICE

Portfolio and entity-level transaction lagging prior peak by **\$2.5 billion** on average each quarter

#### INDUSTRIAL

2016 volumes **grew 1.2%** from 2015 if +\$250.0 million portfolio deals excluded

#### MULTIFAMILY

**4.3% multifamily volume increase** at year-end from 2015's record-setting level

#### RETAIL

Retail portfolio volume has **decreased by 33.7%** from 2015, despite a handful of large portfolio acquisitions

#### LODGING

U.S. hotel transactions represented **nearly 50%** of all sales globally in 2016

#### NET LEASE

**7.4% increase** in net lease office sales year-over-year

# INVESTMENT THEMES OF Q4

*A balancing of growth pressures, pricing and uncertainty will drive focus and selectivity in 2017*

## U.S. Investment (FY 2016)

**\$432.4**

Investment sales (FY, billions of \$US)

**-9.7%**

FY investment sales growth (%)

**0–5%**

2017 investment sale forecast (%)

## U.S. Office Investment (FY 2016)

**1.0%**

12-month net absorption (as a % of inventory)

**1.1%**

12-month completions (as a % of inventory)

**3.6%**

12-month rent growth (p.s.f., %)

**-0.6%**

FY investment sales growth (%)

## U.S. Industrial Investment (FY 2016)

**2.1%**

12-month net absorption (as a % of inventory)

**1.8%**

12-month completions (as a % of inventory)

**8.7%**

12-month rent growth (p.s.f., %)

**-31.1%**

FY investment sales growth (%)

## U.S. Multifamily Investment (FY 2016)

**1.6%**

12-month net absorption (as a % of inventory)

**1.8%**

12-month completions (as a % of inventory)

**3.8%**

12-month rent growth (p.s.f., %)

**4.3%**

FY investment sales growth (%)

## U.S. Retail Investment (FY 2016)

**1.0%**

12-month net absorption (as a % of inventory)

**0.6%**

12-month completions (as a % of inventory)

**2.8%**

12-month rent growth (p.s.f., %)

**-18.7%**

FY investment sales growth (%)

## U.S. Lodging Investment (FY 2016)

**0.1%**

FY occupancy growth (%)

**3.2%**

FY RevPAR growth (%)

**1.6%**

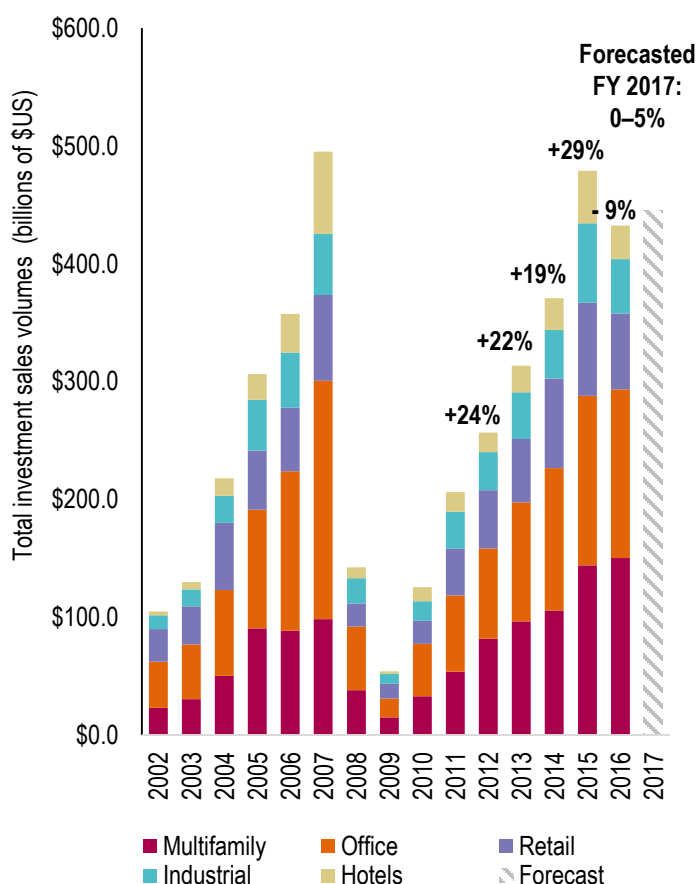
FY supply growth (%)

**-34.8%**

FY investment sales growth (%)

## With a strong close, U.S. volumes down less than 10% at year-end

U.S. investment sales reached \$432.0 billion at year-end, down 9.7 percent year-over-year



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M; Includes portfolio, entity-level transactions)

## After U.S. presidential election, markets exhibit optimism despite domestic and global concerns

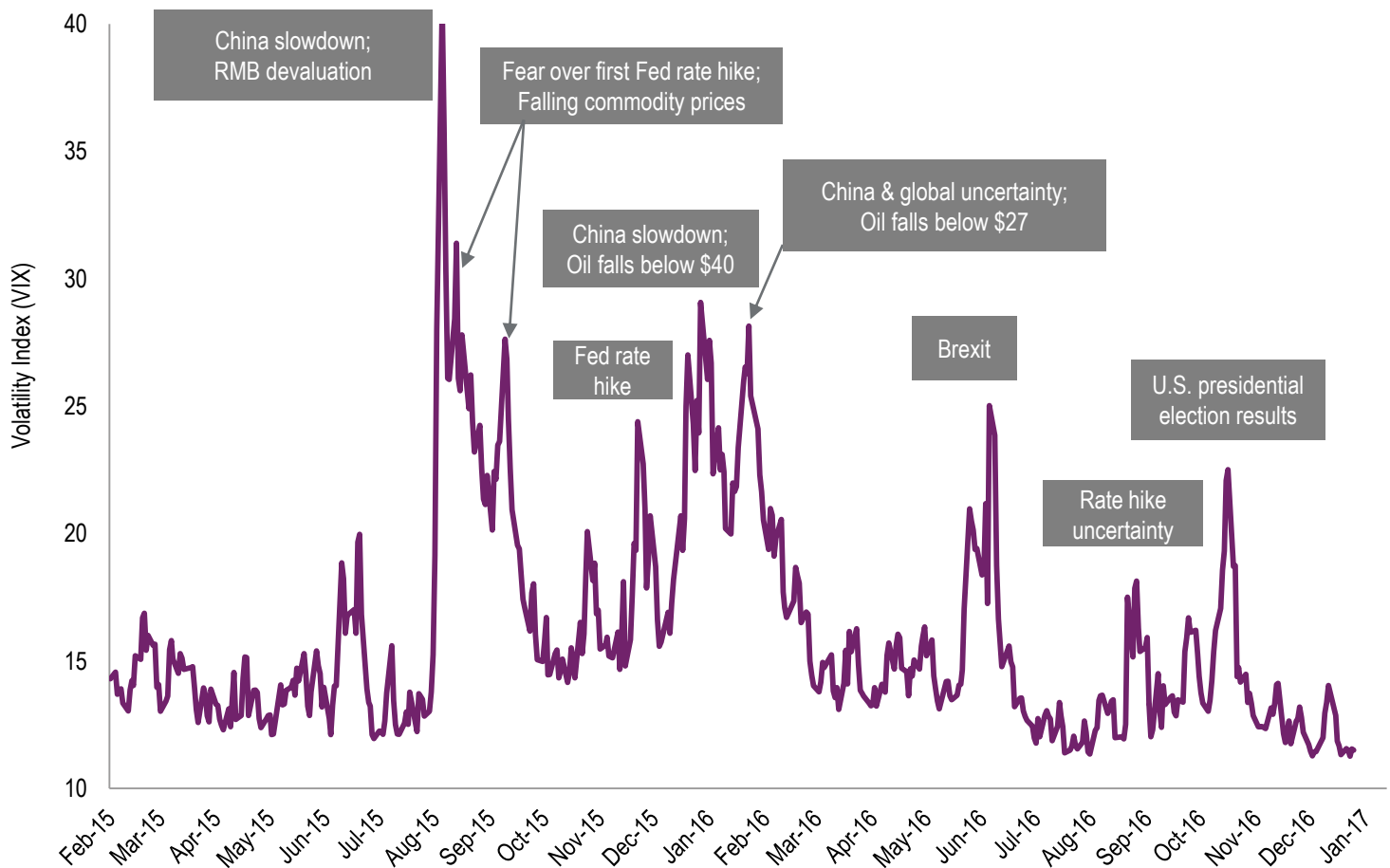
The fourth quarter of 2016 saw two major events that required full attention: the OPEC decision to cut production and the U.S. presidential election. In what was the most volatile week of the fourth quarter, fears of OPEC not being able to come to a decision on a production cut and uncertainty over the presidential election caused the Volatility Index (VIX) to jump to 22.5 on November 4, 2016, while averaging 19.6 during the seven days leading up to the election and only 14.1 the entire fourth quarter. Despite these bumps, limited volatility remained the norm in the fourth quarter, averaging only 17.0 on the index. After OPEC came to a production cut decision and the victory by President Donald Trump, equity markets at-large have reacted with optimism, with all three major stock indices reaching record highs. Since the presidential election and as of the close of markets on January 26:

- The S&P 500 gained 7.3 percent and reached an all-time high of 2,298.4 on January 25;
- The Dow Jones Industrial Average gained 9.6 percent and reached a new all-time high of 20,100.9 on January 26; and

- The NASDAQ gained 8.9 percent and reached an all-time high of 5,656.3 on January 25.

With this, the VIX dropped to its lowest level of the past two and a half years, closing at 10.6 on January 26th. Despite recent market euphoria, skepticism and uncertainty remain with the current political environment, factors which continue to weigh on investor sentiment. The uncertainty is further demonstrated by the CBOE Skew index, an index which indicates prices investors pay for “black swan” protection—thus implying market expectations for a black swan event. The index increased by 15.0 percent during the month of January, reaching its third highest level since its inception in 1990. This uncertainty should not be viewed as isolated to the U.S. market. Global economic and political concerns remain and should be monitored closely.

### Volatility remains down and at the lowest level in 2.5 years



Source: JLL Research, CBOE, Bloomberg, NCREIF

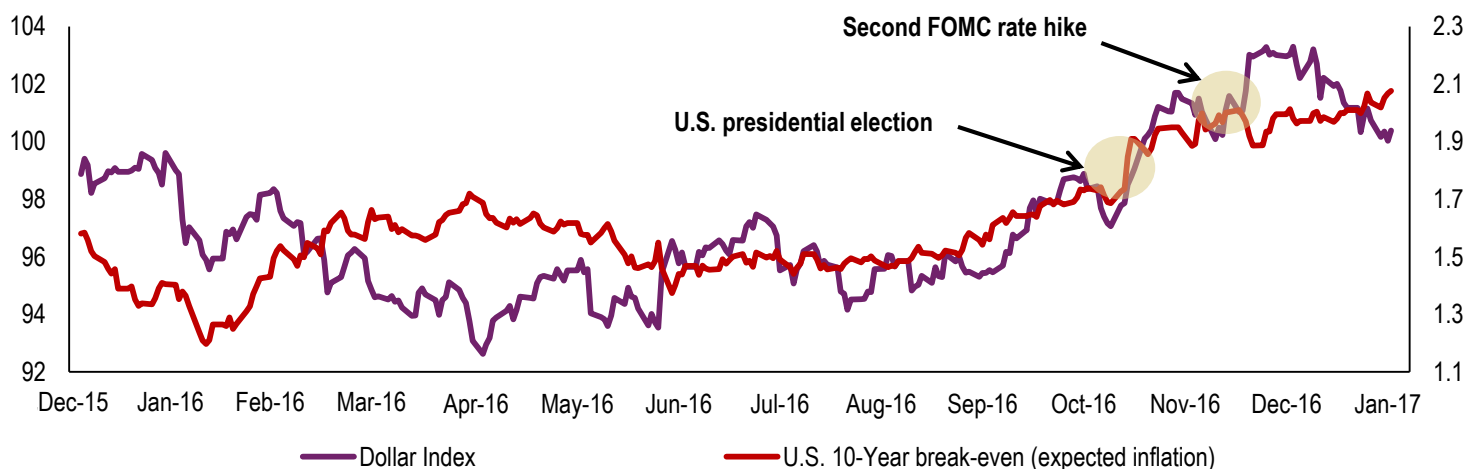
## Rates rise with increased monetary tightening expected in 2017

The U.S. macroeconomy is further complicated by Federal Reserve monetary tightening. In December 2016, the FOMC raised rates for the second time in over a decade, a decision which was largely expected. Lagging monetary tightening is expected to shift in 2017. With the U.S. dollar recently reaching a 13-year high relative to other global currencies and inflation expectations continuing to rise, the market is already anticipating at least three rate hikes in 2017. This presents a positive yet complicated indicator for U.S. markets. At a time when central banks globally have extraordinarily low rates and loose monetary policies, rising interest rates in the U.S. could force the dollar to appreciate further. Given the dollar's strength relative to other currencies and questions surrounding U.S. trade policy with countries such as Mexico and China, the impact has yet to be realized.

As U.S. equity markets set new records and monetary tightening takes a step forward, the 10-Year Treasury rate has increased significantly. Prior to the U.S. election, the 10-Year averaged 1.74 percent in 2016, reaching as low as 1.36 percent in the second quarter. However, it has been on the rise and closed the fourth quarter at 2.44 percent, expanding 85 basis points in the fourth quarter and 65 basis points since the U.S. election. Looking ahead, markets expect rates to steadily climb. This is further supported by talks of heavy spending on infrastructure and defense coupled with tax cuts and higher inflation. The Fed's expressed concerns on commercial real estate pricing will be a controlling factor. As the yield on the 10-Year continues to rise, it will apply pressure on real estate markets. However, its impact will be determined by the directionality of property fundamentals and thus to ability of income strength or capital demand to offset the increased cost of capital. With the solid and stable economy, the property outlook remains strong and rising, with spreads at healthy levels compared to the prior peak.

### Inflation expectations elevated

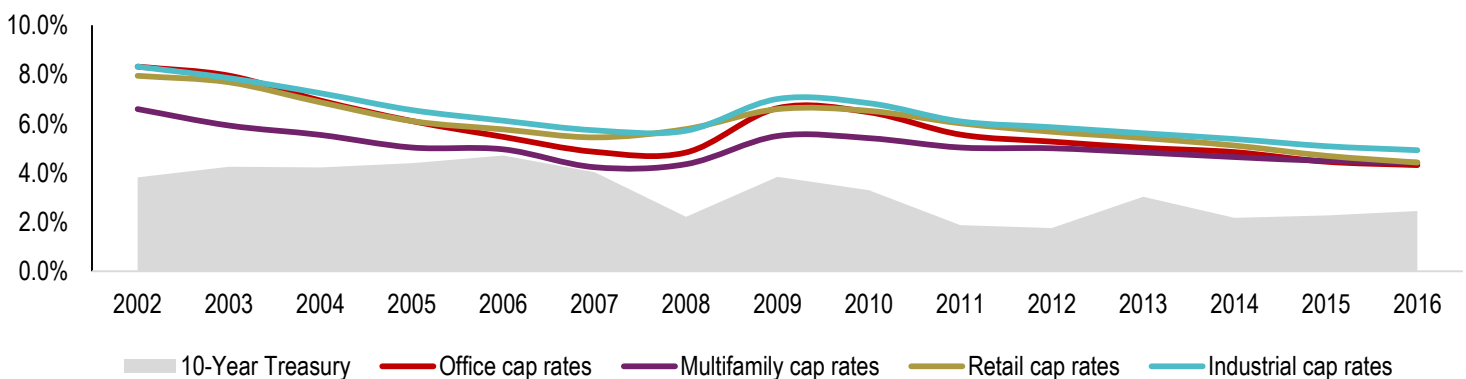
As the U.S. dollar continues to climb, inflation expectations moved with it; Inflation expectations are up by 34 basis points since the election



Source: JLL Research, Prequin (includes closed-end funds)

### While the gap has tightened, spreads remain healthy

Spread remains healthy, averaging 200+ basis points and nearly twice that of the prior peak



Source: JLL Research, NCREIF, Board of Governors of Federal Reserve

## Growth pressures, pricing and uncertainty challenging capital sources and impacting volumes

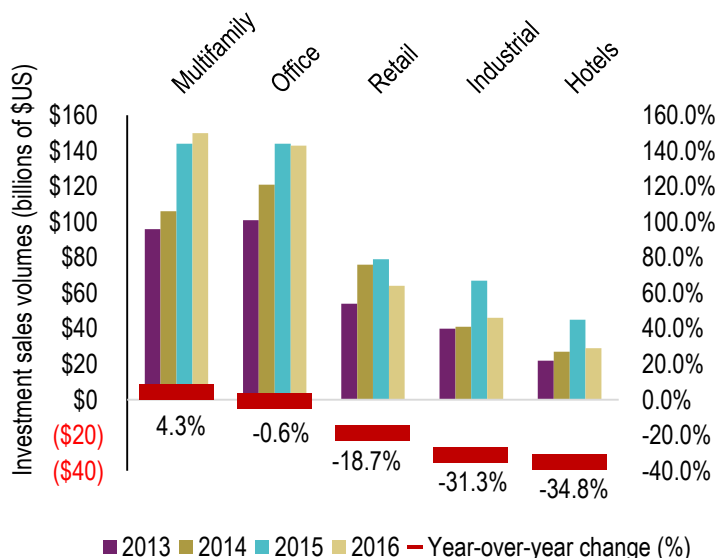
In line with expectations, commercial real estate volumes declined 9.7 percent across the office, industrial, multifamily, retail and hotels sectors at year-end 2016:

- The multifamily sector remained the outlier, with a third consecutive record-setting year, reaching \$150.3 billion and growing 4.3 percent year-over-year.
- A strong fourth quarter pushed the office sector to see stable activity year-over-year, declining a modest 0.6 percent with \$43.2 billion of fourth-quarter transaction volumes. The closings of large portfolio acquisitions by Cousins Properties and Blackstone were a boost to volumes.
- While the numbers show a 31.1 percent decline in the industrial sector, this is the result of outlier 2015 activity. If the nearly \$25.0 billion of transactions larger than \$250.0 million were excluded from 2015 volumes as well as the \$3.6 billion of comparable transactions this past year, industrial volumes would be up 1.2 percent.
- The retail and hotels sectors both experienced full-year declines, of 18.7 and 34.8 percent, respectively. Defensive investment strategies in the retail sector are benefiting grocery-anchored, urban and Class A mall product—where opportunities exist.

Despite activity declines, asset pricing remains stable broadly. However, with interest rates rising, a shifting liquidity landscape and concerns over current pricing levels, pricing is under pressure. This is most evident in segments of the hotels, office and multifamily sectors—each of which has exhibited signs of plateauing or softening cap rates. The hotels sector is leading this trend, with U.S. hotel cap rates softening nearly 50 basis points in 2016.

### Divergent investment sales performance across sectors at year-end

As total U.S. volumes declined 9.7 percent at year-end, multifamily continued to outperform, with full-year growth of 4.3 percent, followed closely by stable office activity

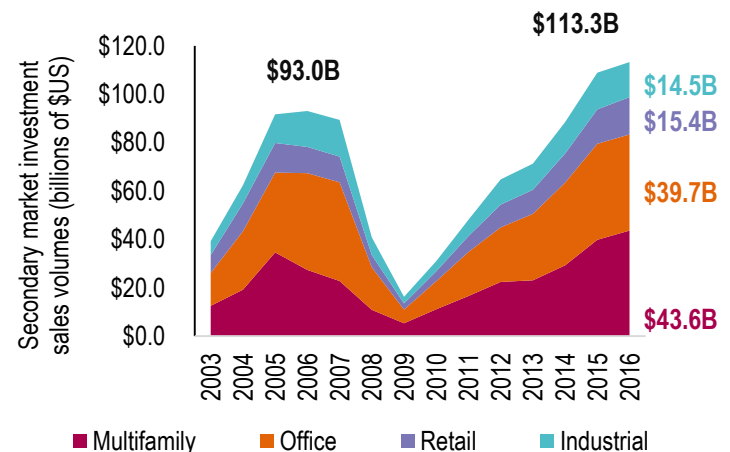


Not all indicators were down in 2016. Most notably, secondary market investment increased 4.0 percent year-over-year, reaching a record \$113.3 billion of transactions. This momentum is being driven by diversifying investors within the multifamily and retail sectors, each of which increased in excess of 8.0 percent at year-end. Similar, although lagging, investment has been evident in the office sector. With this, secondary market investment now exceeds prior cycle peak levels by 21.7 percent. While New York and Los Angeles remain the most active U.S. primary markets, Dallas–Fort Worth, Atlanta, Phoenix and Denver continue to outperform secondary markets, each seeing in excess of \$8.0 billion of activity at year-end.

Stabilized and increasingly optimistic investor sentiment is expected to sustain current investment sales levels in 2017. Following three record years of single-asset sales, increased portfolio and platform transactions will be a key factor for gains in 2017 and into 2018. However, uncertainty will result in continued selectivity, spurring an increasingly difficult challenge of balancing submarket and asset risk with pressures for yield and scale. Those markets that are demographically and economically strong with rising midterm outlooks are well positioned to sustain any near-term shifts in liquidity and pricing.

### Secondary markets hit record volumes of \$113.3 billion in 2016

Despite overall market decline, historic levels of multifamily and retail investment sales, reaching \$43.6 and \$15.4 billion, respectively, at year-end



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M; Includes portfolio, entity-level transactions)

Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M; Includes portfolio, entity-level transactions)

## Fundraising efforts moderating, reflecting a shift toward late-stage cycle strategies

As fundraising declined 2.7 percent year-over-year in 2016, signs are emerging that it is becoming difficult to place capital. At year-end, there remained record levels of dry powder on the sidelines, totaling \$245.0 billion globally, with \$133.0 billion focused on North America. This increased even further in the first month of 2017, expanding to \$142.0 billion. With this, the focus is increasingly on deploying raised funds. The exception has been debt and distressed fund strategies, both of which raised capital at record levels in 2016. Debt funds notably raised \$21.7 billion, more than double those closed in 2015. H/2 Capital Partners, Mesa West Capital, KKR and Prime Finance Partners each closed on debt funds exceeding \$800 million in the last six months of 2016. As a result, as opportunistic and value-added fundraising levels declined in 2016, debt fundraising increased to account for 29.3 percent of all funds raised in 2016. While still limited in scale, markets also saw \$7.6 billion of closed distressed funds in 2016, the most raised since 2010. This is largely due to a \$5.6 billion fund led by Lone Star Funds. As a focus on deploying capital remains in 2017, fundraising at-large is expected to decline yet reflect late-stage cycle investment strategies—focused on debt, distress and more Core assets.

### Fundraising down slightly, but remained elevated, at year-end 2016

Closed-end fundraising down 2.7 percent at year-end, but remained above \$70.0 billion for the third of the last four years

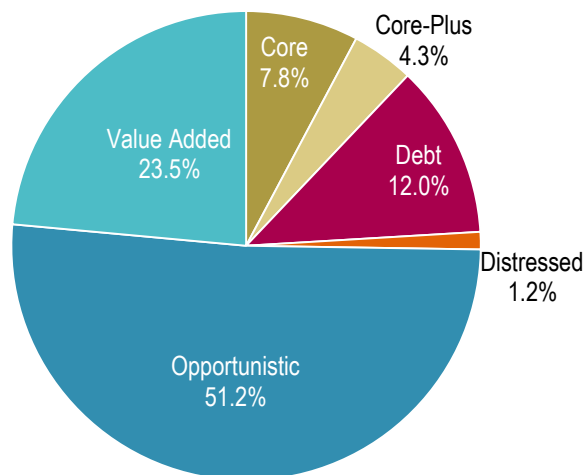


Source: JLL Research, Preqin (Data includes North American closed funds as of December 31, 2016)

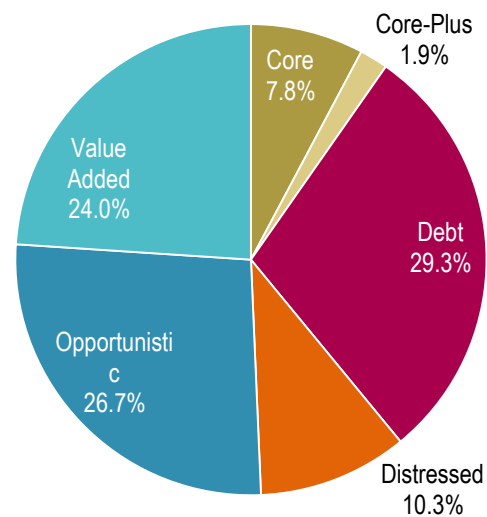
### Increased focus on debt funds emerged in 2016

Capital strategies evolving as an appetite for risk-adjusted yield persists, benefiting debt fundraising in 2016, as a pullback in value added and opportunistic fundraising was evident

2015 CRE fundraising



2016 CRE fundraising



Source: JLL Research, Preqin (Includes closed-end funds)

## Despite increased stability in pricing, CMBS volumes remain low and out of favor

In early 2016, unfortunate market volatility caused CMBS to fall out of favor and never fully recover. Coupled with looming risk-retention regulation, it was going to be very challenging for the financing vehicle to surpass the \$101.0 billion mark that was set at year-end 2015. Full-year 2016 CMBS volume was down 24.8 percent year-over-year, despite some strength in the final quarter of the year. Fourth-quarter issuance increased 11.5 percent, growth attributed to stability in pricing but also the race to beat the December 24 risk retention start date.

Spreads on new issue CMBS have consistently come down with market volatility. In the fourth quarter, the spread over swaps on new issues averaged 113 basis points and has recently fallen below 100. Though risk retention was feared as being a cannibalizing factor to CMBS volume, early indications point toward having minimal impact on spreads and have shown signs of early success, albeit with mainly the vertical retention structure. New issuance forecasts for 2017 remain low, ranging from \$55.0 to \$80.0 billion. With the next wave of prior cycle maturities approaching, this leaves a notable gap. Banks, life companies and, to a lesser extent, debt funds will be key contributors in filling this gap in 2017. Shifts in the regulatory environment for the financial sector by the new administration could loosen current commercial real estate lending pressure.

### CMBS spreads stabilizing following a volatile 2016

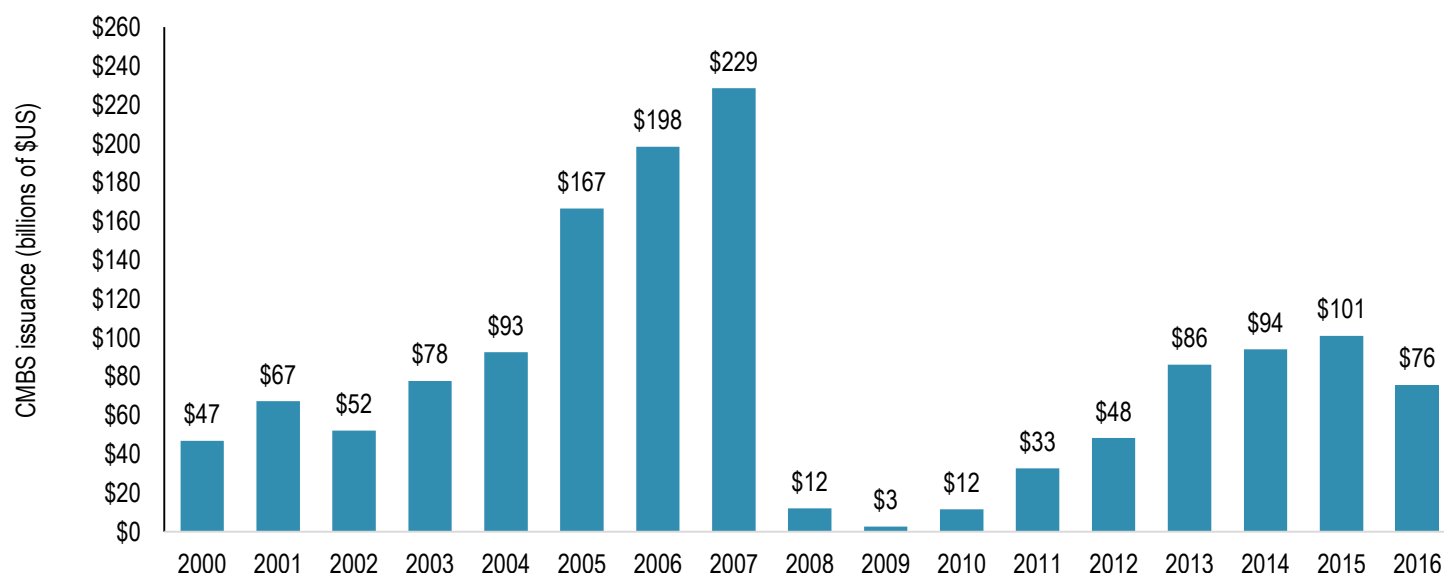
Since peaking in February 2016, spreads on new issue AAA CMBS have steadily come down, averaging 113 basis points in the fourth quarter and reaching as low as 92 basis points in early 2017



Source: JLL Research, Trepp, Bloomberg

### Market volatility and regulatory uncertainty hurt CMBS in 2016

U.S. CMBS financing in 2016 was \$76.0 billion versus \$101.0 billion in 2015, a 24.8 percent decline



Source: JLL Research, Bloomberg, Commercial Mortgage Alert (through December 30, 2016)

## Offshore investment levels remain elevated, led by Asian investors

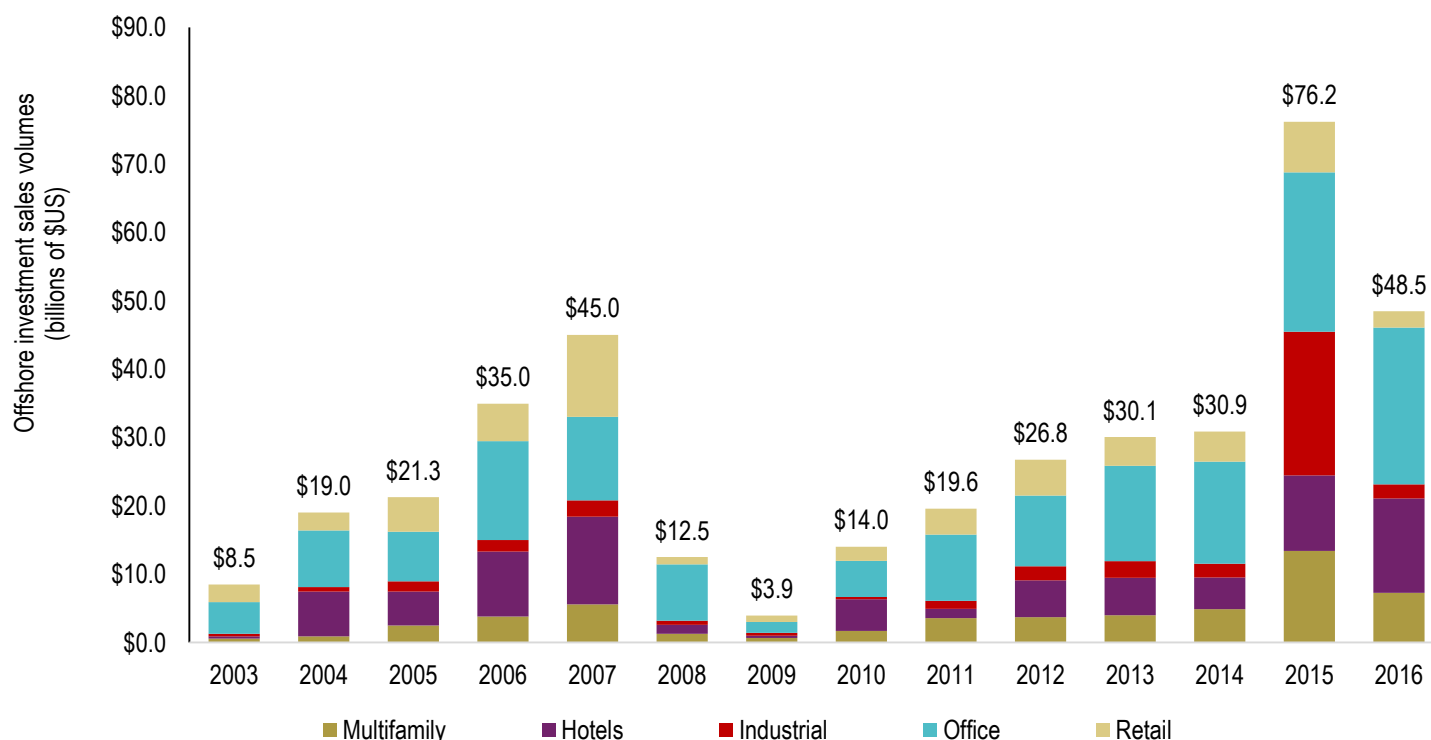
Despite continued uncertainty in the U.S., most notably surrounding the future political environment, global capital flows continue to benefit the U.S. market. Offshore investment remains at elevated levels with \$48.5 billion of acquisitions in 2016, down from the record set in 2015 while still above the 2007 peak by 7.8 percent. This accounted for 11.3 percent of full-year 2016 acquisitions, the second highest year on this metric in recent history. The hotels and office sectors are seeing the outsized benefit of this capital:

- 48.4 percent of full-year 2016 acquisitions in the hotels sector were by offshore investors. This is an all-time high for the sector and up from the 24.8 percent in 2015.
- The office sector experienced its second consecutive year of \$20.0 billion+ acquisition levels, with 2015 and 2016 each seeing offshore investors account for over 16.0 percent of full-year sector acquisitions. While three-fourths of this capital remains focused on the primary markets, there is more evidence of the diversification of this capital into secondary markets: Of the ten largest offshore office acquisitions in the fourth quarter, five were in secondary markets, with four of those being multitenanted yet Core and stabilized properties.

Investors from Asia, Europe and the Middle East have increased relative activity levels in 2016. However, Asian capital remains dominant, accounting for 34.7 percent of full-year offshore U.S. acquisitions. European groups simultaneously increased participation from 25.8 to 29.1 percent year-over-year—a trend driven by German capital—and Middle Eastern groups from 11.6 to 14.9 percent. Asian investment gains remain concentrated across five countries: China, Singapore, South Korea, Hong Kong and Japan. Capital out of these five countries in aggregate accounted for nearly 97.0 percent of U.S. Asian acquisitions in 2016, with China, Singapore and South Korea accounting for three of the five most active countries of origin. The expansion of capital demand from these countries demonstrates the structural shifts experienced this cycle: While these five countries accounted for 33.5 percent of inbound acquisitions last year, they accounted for a minor 5.0 percent of comparable annual activity between 2004 and 2007 on average. In line with broader sentiment, offshore investors remain active yet selective. These capital sources will continue to diversify across sectors with a more conservative approach to market diversification.

### Cross-border investment remained elevated in 2016

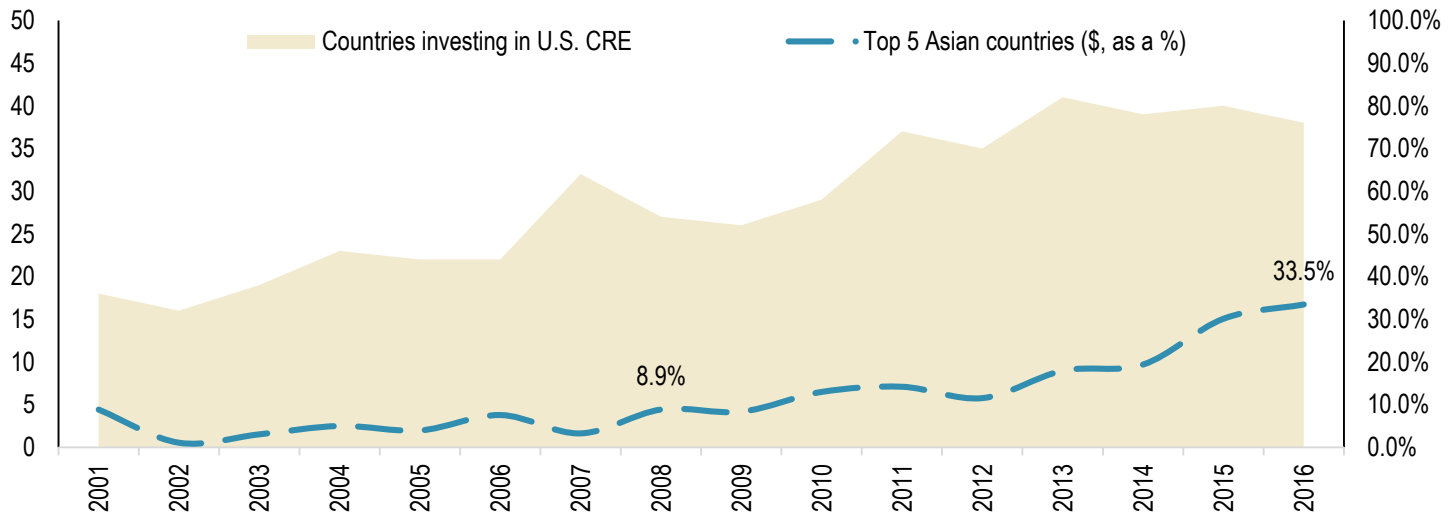
While down relative to record 2015 cross-border investment levels, offshore investment levels exceeded 2007 as well as 2013 and 2014 levels with nearly \$49.0 billion at year-end



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## Asian buyers transforming U.S. cross-border landscape

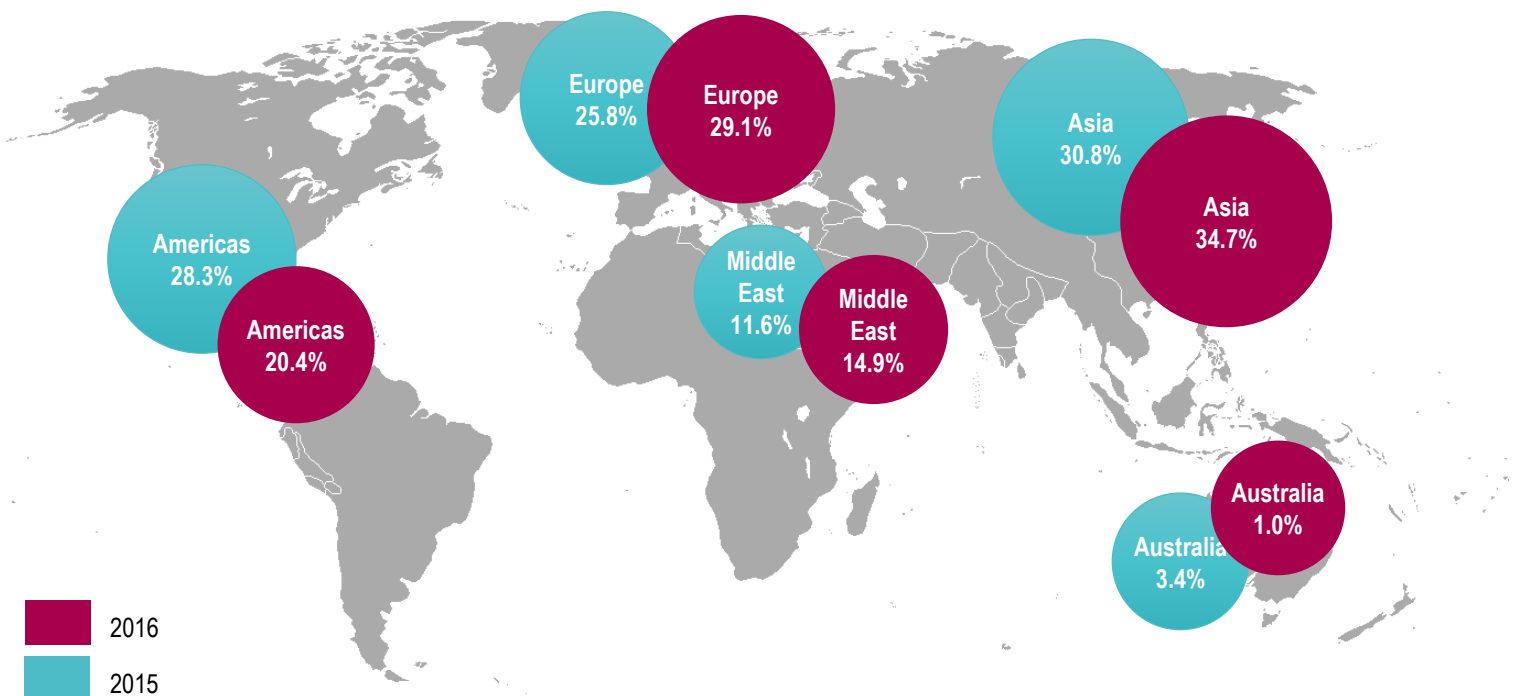
As the count of countries investing in the U.S. expands, five most active Asian countries driving an outsized percentage of gains, accounting for 33.5 percent of total cross-border volumes in 2016



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0m); Excludes hotels

## Asian capital remains dominant; Europe, Middle East ramping up

European capital reemerging as active source of capital in 2016, accounting for 29.1 percent of inbound investment at midyear; Middle Eastern capital seeing ramp-up in U.S. deal flow



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M); Excludes hotels



# Office

# OFFICE

*Following a year of moderate declines, office dynamics well positioned in 2017*

U.S. Office property market		U.S. Office investment	
-20	1.0%	\$143.0	-0.6%
12-month change in total vacancy (bps)	12-month net absorption (as % of inventory)	Investment sales (FY, billions of \$US)	FY investment sale growth
1.1%	3.6%	4.3%	-26
12-month completions (as % of inventory)	12-month rent growth (p.s.f.)	Average cap rate	12-month change in cap rate (bps)

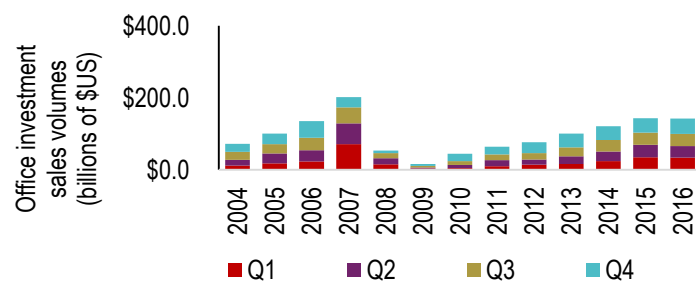
**Incremental growth of office fundamentals expected as workforce constraints emerge and absorption decelerates.** Near full employment markets and a shortage of skilled talent are restricting expansionary activity in several major technology hubs, a factor in decelerating leasing velocity and moderating occupancy growth. Broader economic trends appear favorable heading into 2017, with increased optimism toward business conditions, personal finances and employment. The shift in public policy will be a key factor to watch.

**Following a year of uncertainties, office liquidity outlook improving for 2017.** Despite U.S. investment volume declines in 2016 at-large, the office sector sustained stable activity, reaching \$143.0 billion of full-year transactions. However, office pricing remains under pressure as investors adopt more selective, targeted acquisition strategies, impacting liquidity in parts of the market. Moving into 2017, investor sentiment continues to improve with sustained cautious optimism.

**Pent-up demand for scale to benefit office investment into 2018.** Lagging portfolio and entity-level transactions this cycle are expected to shift in 2017. Investor appetite for scale, built-up value by national to regional real estate platforms and underperforming public markets are factors in this outlook.

## Office investment sales

While up 7.4 percent in the fourth quarter, year-to-date office investment sales stable over 2015 levels with a modest 0.6 percent decline at year-end



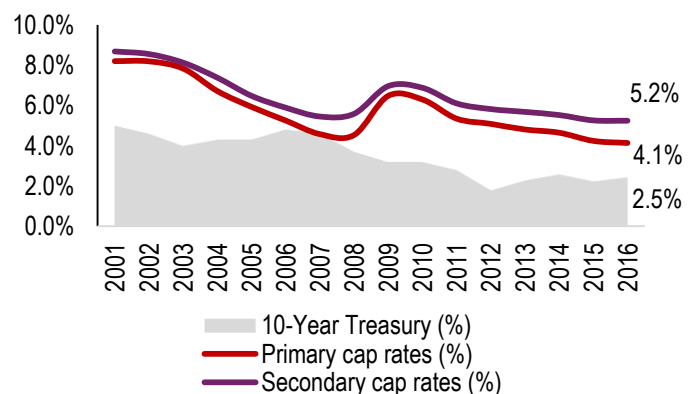
Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

**As secondary market investment increases, outperformers emerging across CBDs and suburbs.** After a modest setback at midyear, secondary market momentum has been reenergized, with these markets seeing their most active relative year of the cycle in 2016. Atlanta, Dallas and Philadelphia are leading this activity, with drivers divergent across CBD and suburban submarkets.

**Offshore office investment remains the norm, with German and Asian buyers now leading.** With more than \$20.0 billion of foreign office acquisitions in 2016, the sector continues to be a primary beneficiary of offshore capital demand. This is increasingly being driven by German and Asian capital. While three-fourths of this capital remains focused on primary markets, modest gains are being seen in multitenanted, core assets in select secondary markets.

## Despite year-over-year compression, office cap rates plateauing

With recent gains in interest rates, the spread between office cap rates and the 10-Year Treasury has also tightened. However, spreads remain healthy with room for further compression



Source: JLL Research, NCREIF, Board of Governors of Federal Reserve

# TOP 5 OFFICE THEMES

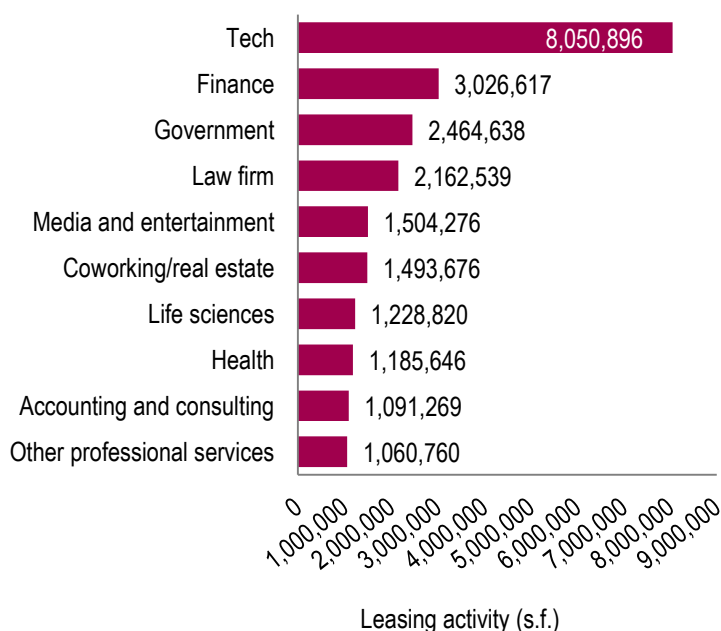
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## Incremental growth of office fundamentals expected as workforce constraints emerge and absorption decelerates

A combination of decelerating leasing velocity and a lower level of “mega leasing” in the fourth quarter resulted in the lowest level of occupancy growth in the U.S. office market in 24 months. This comes as markets near full employment and a shortage of skilled talent restricts expansionary activity in several major technology hubs. However, the tech sector remained the office market’s primary demand driver, representing 24.4 percent of national leasing activity and helping offset suppressed tenant demand in the legal and financial services sectors. Within the major tech markets, the pace of San Francisco’s growth is slowing—decelerating from 2.9 to 1.1 percent occupancy growth from 2015 to 2016, respectively, but sustained, robust expansionary activity in hubs such as Austin, Seattle-Bellevue and Silicon Valley are counteracting this, with each recording annual occupancy gains of 2.0 percent or greater.

### Leasing by industry

Tech remains by far the leader in leasing activity, even as the industry faces a talent shortage



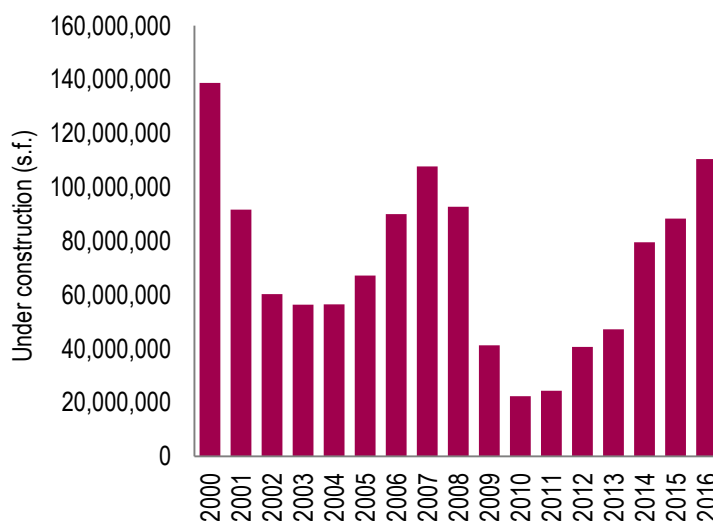
Source: JLL Research (leasing activity > 20,000 s.f.)

Despite the moderation in leasing demand, construction volumes rose once again and now stand at a cyclical high of 110.5 million square feet. Completions for 2017 are expected to exceed demand for the first time in the current cycle, with construction anticipated to peak and new groundbreakings to ratchet back in 2017. The risk of future oversupply is most acute in major gateway markets, including New York and Washington, DC, in which a surplus of quality new space or challenging prospects for backfilling second-generation space may materialize over the next 24 months.

Heading into 2017, broader economic trends appear favorable for the office sector, with consumer confidence recently rising to a 13-year high, suggesting increased optimism toward business conditions, personal finances and employment. The broader shift in public policy will be a key factor to watch. Prospects of policies favoring deregulation and lower taxation may serve as a catalyst for select industries which have faced increased regulatory pressures over the past eight years.

### Under construction

2016 ended the year at 110.5 m.s.f. of development activity, surpassing the previous cyclical peak



Source: JLL Research

Despite U.S. investment volume declines in 2016 at-large, the office sector sustained stable activity, reaching \$143.0 billion of full-year transactions. This represented a modest annual decline of 0.6 percent. The fourth quarter was a key driver of year-end activity: \$43.2 billion of office transactions represented the largest quarterly figure of the cycle, and with quarterly gains of 7.4 percent, this represented the highest level of quarterly gains since the second quarter of 2015. This further supports that investor sentiment is stabilizing with increased optimism heading into 2017.

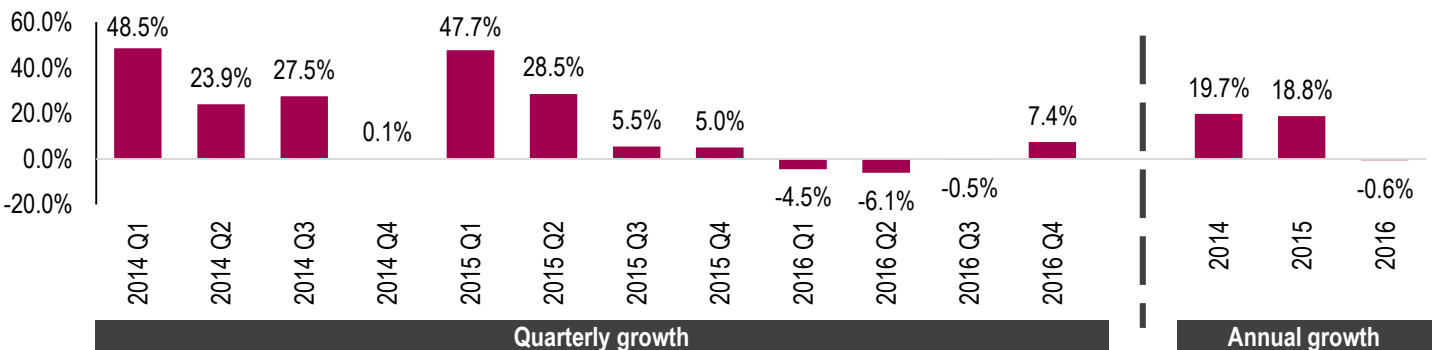
On the heels of an uncertain global investment environment over the past 18 months and sustained record-low cap rates, office pricing remains under pressure as investors adopt more selective, targeted acquisition strategies. With this, the liquidity landscape for office product weakened in 2016, negatively impacting low-growth, non-CBD, suburban office submarkets. The liquidity for core, urban office transactions similarly weakened, though it fared well relative to the aforementioned suburban product. These dynamics have translated into plateauing office cap rates

with signs of softening emerging in select secondary markets. In 2015, a minor 6.0 percent of tracked office markets experienced softening; in 2016, this metric expanded to 25.0 percent, the highest level seen since 2010. With this, the gap between primary and secondary market cap rates remains at record levels, averaging 111 basis points, compared to the long-term average of 75 basis points.

Looking ahead, following a year of uncertainties and resulting shifts in the office capital markets, investor dynamics have already exhibited signs of improvement in the beginning weeks of 2017. For core investments, the outlook has improved. With active sources of offshore capital and increased activity expected from domestic institutional players this year, dynamics are expected to benefit gateway market opportunities and a select few secondary markets. For value-add and opportunistic opportunities in desirable urban submarkets, liquidity remains very strong and at the highest levels seen yet in select markets. As activity proceeds at more normalized levels, pricing will be a key factor to watch, with high-growth, high-barrier-to-entry markets expected to be more resilient.

### Strong fourth quarter a precursor of 2017 investor sentiment

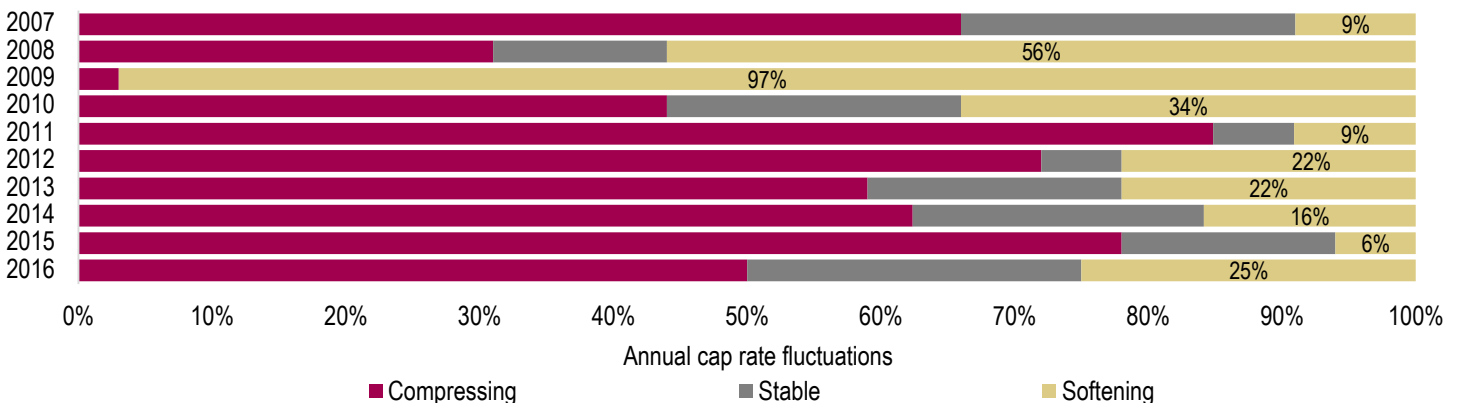
The office sector sustained stable activity in 2016 with a modest 0.6 percent decline. This was driven by a strong fourth quarter—the largest of the cycle—with the highest quarterly gains since Q2 2015



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

### Overall office cap rate fluctuations

While 50.0 percent of markets are seeing cap rates compress, signs of plateauing are beginning to emerge, with 25.0 percent of markets seeing a year-to-date softening of cap rates



Source: JLL Research, NCREIF. Includes 32 major office markets; Stable defined as markets seeing fluctuations within 10 basis points year-over-year.

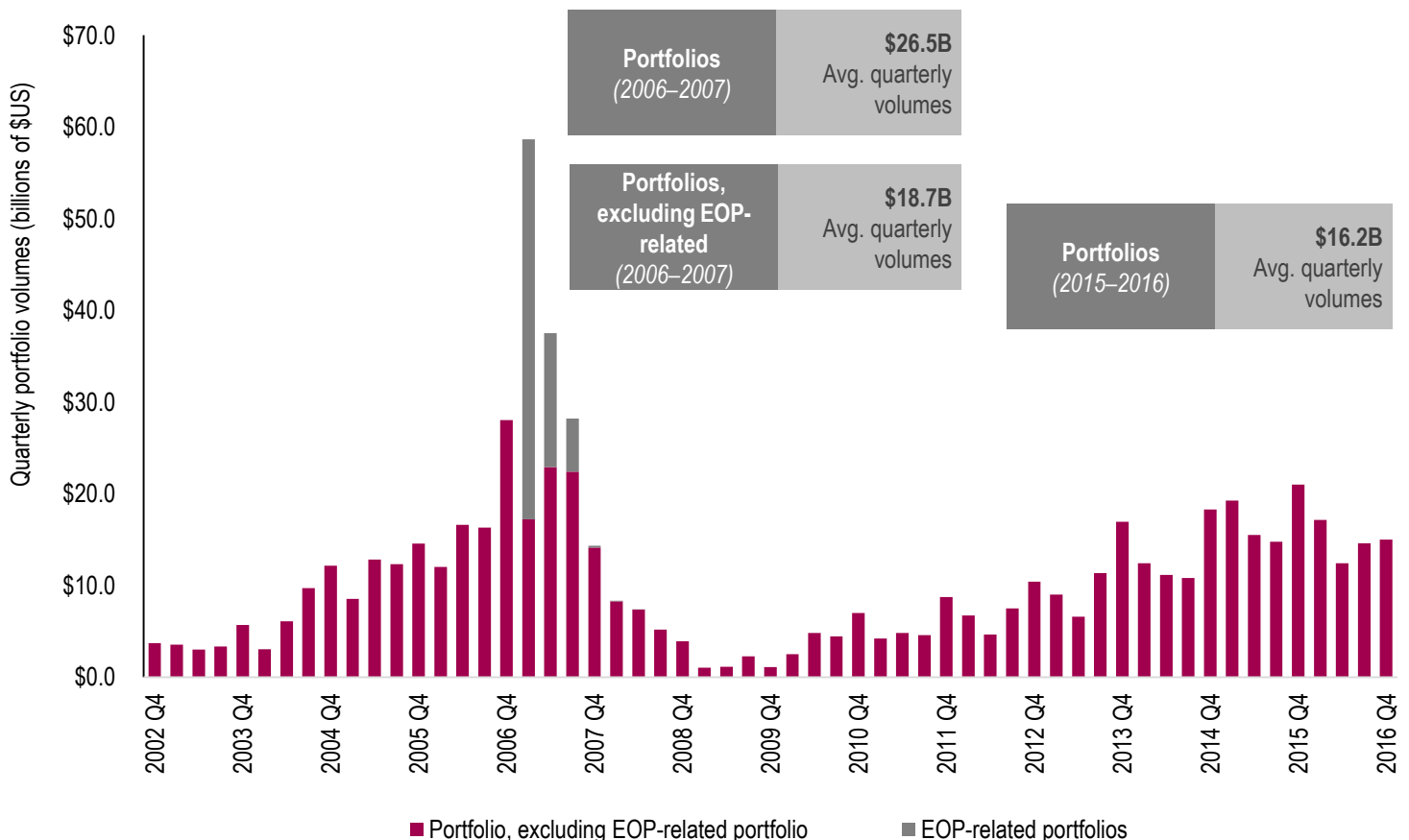
A balance between single-asset and portfolio or entity-level transactions remains the norm in the office capital markets today, with single assets primarily driving office deal flow, exceeding portfolio volumes year-to-year and averaging 58.0 percent of annual transactions since 2010. When comparing this to activity in the prior cycle, it points to pent-up demand for portfolio and entity-level transactions within the office sector. In 2006 to 2007, these transactions drove activity, with single-asset sales accounting for a minority 49.0 percent of activity on average. This average excludes the outsized impact of the Equity Office (EOP) acquisition and subsequent Blackstone dispositions of Equity Office assets in 2007, the total transaction values of which are estimated to have exceeded \$60.0 billion. Excluding EOP, quarterly portfolio volumes over the last eight quarters are between 13.0 and 14.0 percent below the prior cycle peak, set in 2006 and 2007. As a result, portfolio volumes are lagging prior cycle levels by \$2.5 billion on average each quarter. Despite this lag, national and regional portfolio opportunities have been rising with three \$1.0 billion+ transactions closing this quarter alone:

- Cousins Properties closed on its merger with Parkway Properties in an office, entity-level transaction valued at \$1.95 billion.
- Blackstone closed on a national, multisector portfolio from Alecta, a Swedish occupational pension manager, for \$1.7 billion. While diversified, the portfolio contained a strong core of high-quality office assets, accounting for 40.0+ percent of total portfolio value.
- Spurred by Hines's plan to liquidate and dissolve its global REIT, Blackstone also closed on the acquisition of 3.0 million square feet of West Coast office assets for \$1.2 billion.

Considering these facts, the built-up value by national to regional real estate platforms and underperforming public markets, increased portfolio and entity-level activity are expected to drive office investment into 2018 given pent-up demand from existing platforms, as well as a strong desire for scale from dry powder focused on U.S. markets.

### Pent-up demand for scale to benefit office investment into 2018

Excluding the impact of EOP-related investments in the prior cycle, quarterly portfolio volumes remain below historic norms; average quarterly volumes lag prior cycle by \$2.5 billion



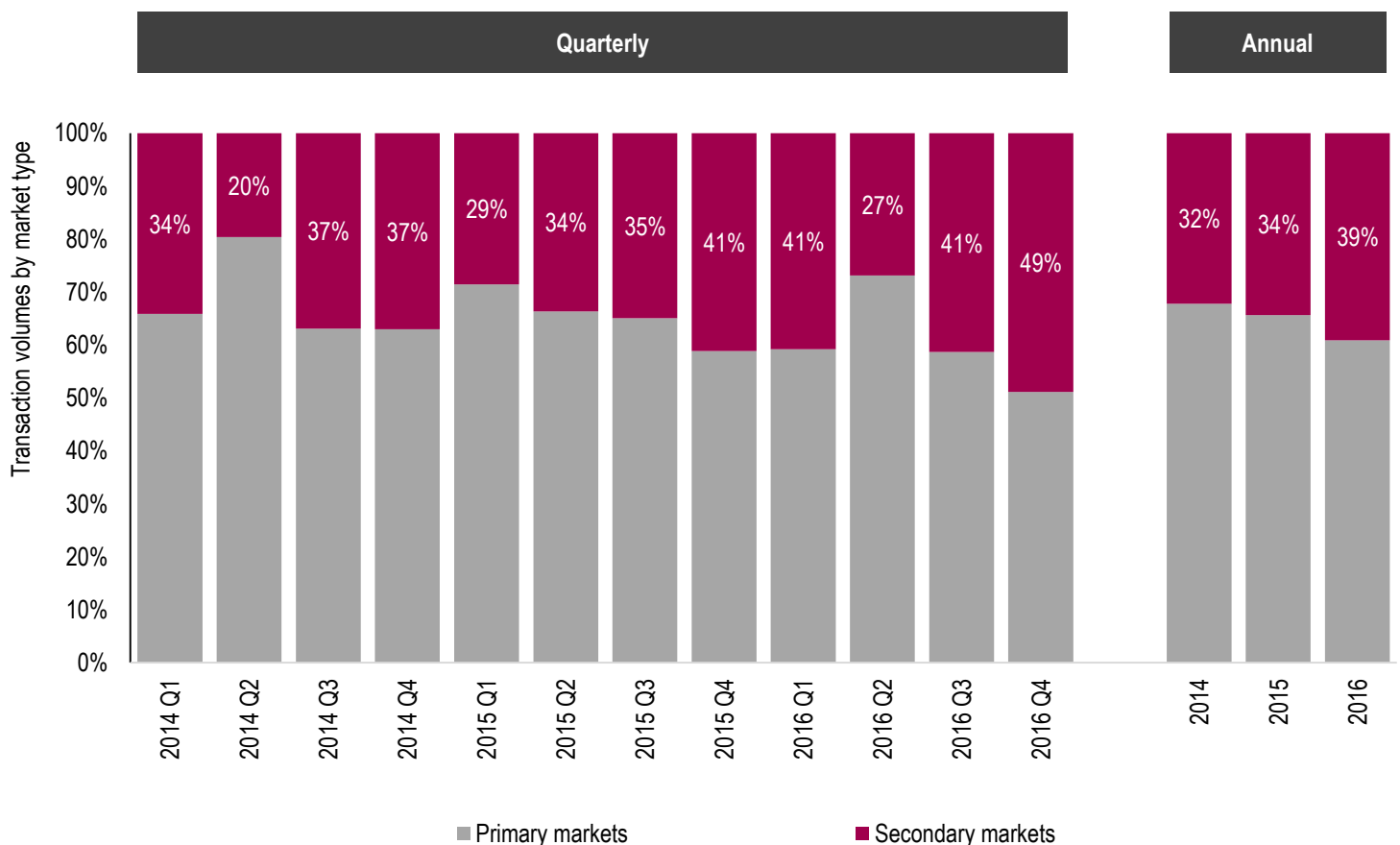
Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

Following up on rebounding momentum during the third quarter, secondary market office investment continued to rise in the fourth quarter, reaching \$10.4 billion of transactions. This represented the second most active quarter for this segment of the current cycle. As a result, secondary market office investment accounted for nearly 50.0 percent of fourth-quarter deal flow and 39.0 percent of full-year 2016 activity. Atlanta, Dallas and Philadelphia remain the largest drivers of volumes, each of which have seen office volumes exceed \$2.0 billion in 2015 and 2016. Atlanta continues to outperform with annual volumes consistently exceeding \$4.0 billion, accounting for four of the ten largest single-asset secondary transactions of the quarter and making it one of the five most active office investment markets in the United States at year-end. In Atlanta's largest deal of the quarter, Starwood Capital Group acquired One Atlantic Center from Hines for \$318.1 million, or \$289 per square foot.

Consistent across all three is a blend of transactions across CBD and non-CBD submarkets. However, while a 35.0+ percent growth in non-CBD transactions in Philadelphia in 2016 was the primary driver of activity, both Atlanta and Dallas are being driven by urbanization momentum: The markets each experienced \$1.0 billion+ of urban office investment in 2016, with Atlanta seeing growth of 37.2 percent and Dallas at 92.6 percent year-over-year. Lagging urban investment is similarly catching up in smaller markets such as Indianapolis, Austin, San Diego and Minneapolis—each of which saw annual CBD office investment growth exceed 40.0 percent. Similarly, lagging suburban investment is catching up in Portland and Oakland–East Bay. While market and submarket selectivity remains the norm, a heightened focus on near- and midterm economic, demographic and fundamental strength will be a critical determinant in driving domestic capital flows in 2017. Those secondary markets exhibiting sustained strength in fundamentals and investment performance will further benefit from a diversifying investor base and thus sustained liquidity and pricing.

### Investment sales volumes by market type

Second-half momentum pushes secondary markets to cyclical high on a quarterly and annual basis compared to primary markets, accounting for nearly 50.0 percent of fourth-quarter transactions

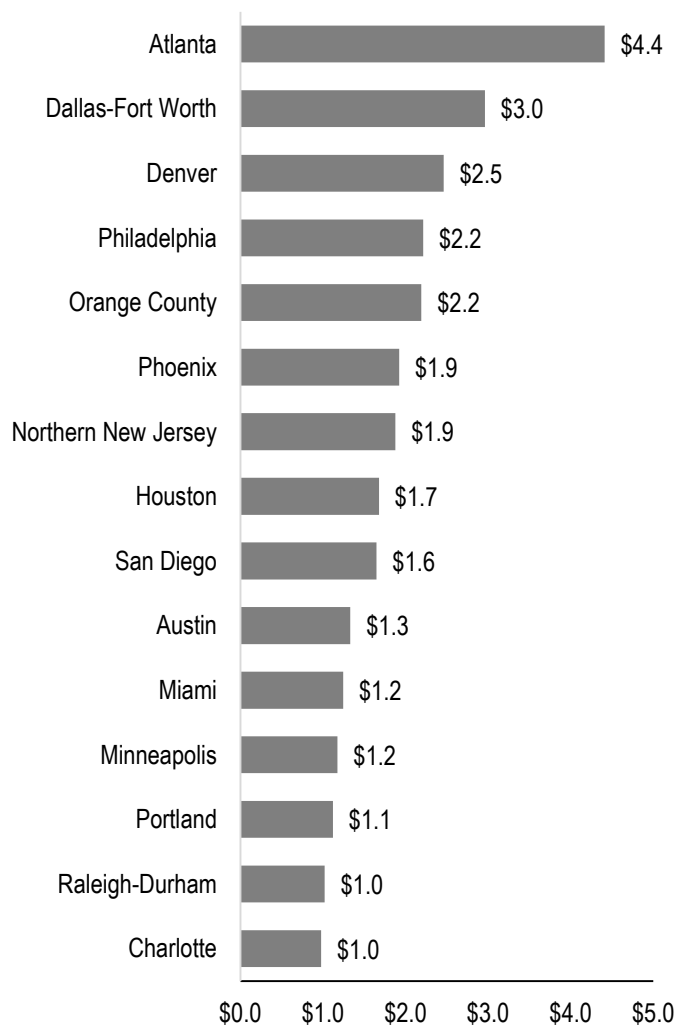


Source: JLL Research (Assets larger than 50,000 s.f.)

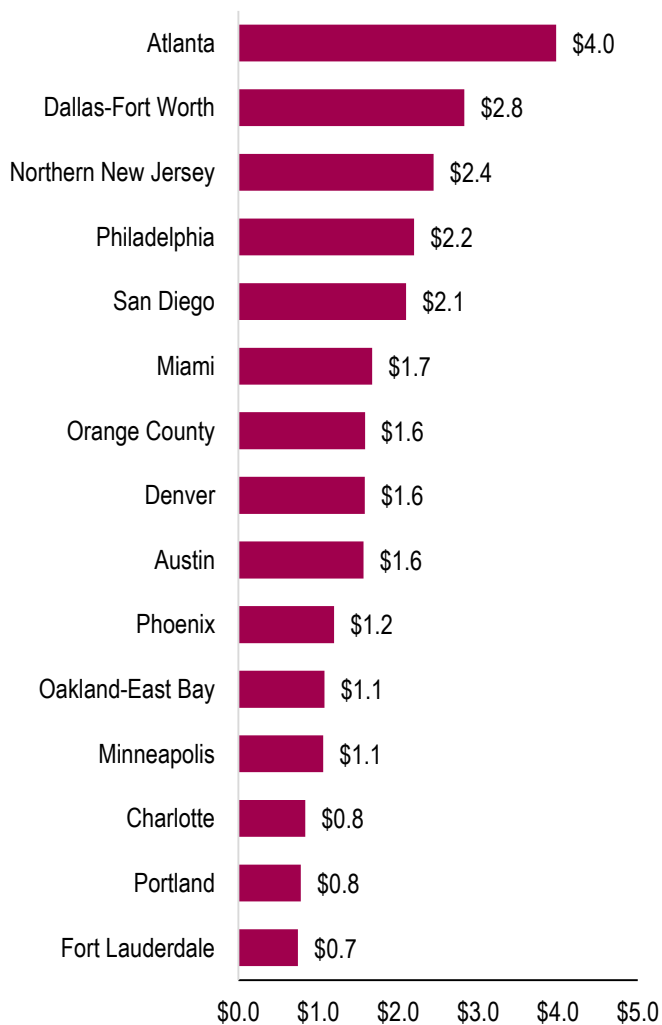
## Who is leading secondary market volumes?

Atlanta, Dallas–Fort Worth and Philadelphia each consistently seeing office volumes exceed \$2.0 billion annually

Leading secondary market volumes (FY 2015, in billions)



Leading secondary market volumes (FY 2016, in billions)



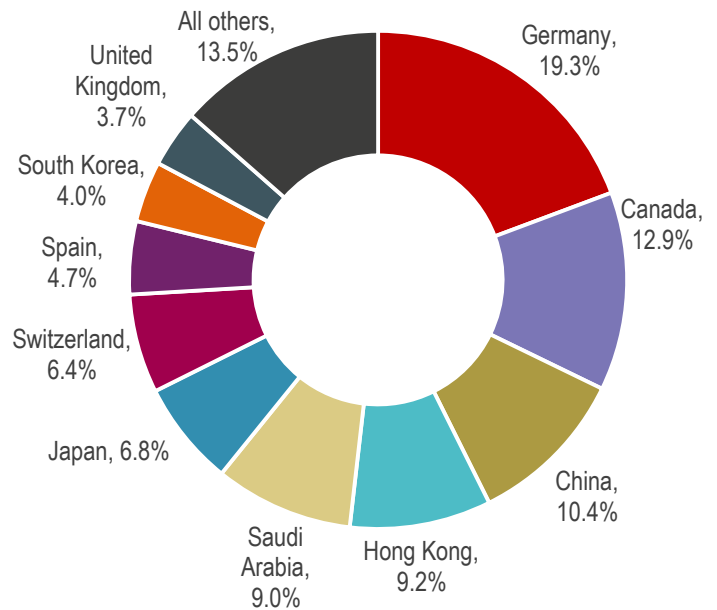
Source: JLL Research (Assets larger than 50,000 s.f.)

When analyzing foreign investor trends, office continues to outperform peer sectors and at a sustained, structural pace relative to the prior cycle. In 2016, foreign office investment exceeded \$20.0 billion and accounted for 16.0 percent of overall acquisition activity for the second consecutive year—record levels on both indicators. As this remains the norm, the profile of offshore buyers continues to evolve. While Canadian groups have historically been the most active, the reemergence of German capital and emergence of Asian capital is now exhibiting its impact. Nearly 40.0 percent of all inbound investment came from European buyers—led by the Germans, followed closely thereafter by Asian (30.8 percent) and Middle Eastern (16.8 percent) capital sources. This is further reinforced when looking at the most active countries of origin. Following German buyers, which were the most active at year-end, Asian buyers were four of the ten most active countries of origin, with Chinese and Hong Kong buyers in the top five. In two of the largest offshore deals closed in the fourth quarter, Israel-based Global Holdings acquired 1250 Broadway in New York for \$565.0 million, or \$875 per square foot, and Spain-based Ponte Gadea acquired Southeast Financial Center in Miami for \$516.6 million, or \$422 per square foot.

With this sustained level of offshore active capital focused on the office sector, there is more evidence of the diversification of this capital into secondary markets: Of the ten largest offshore office acquisitions in the fourth quarter, five were in secondary markets, with four of those being multitenanted yet core and stabilized properties. While these opportunities are slowly increasing for top-performing secondary markets, three-fourths of this capital is expected to remain focused on those gateway markets.

### German, Asian capital leading offshore office acquisitions in 2016

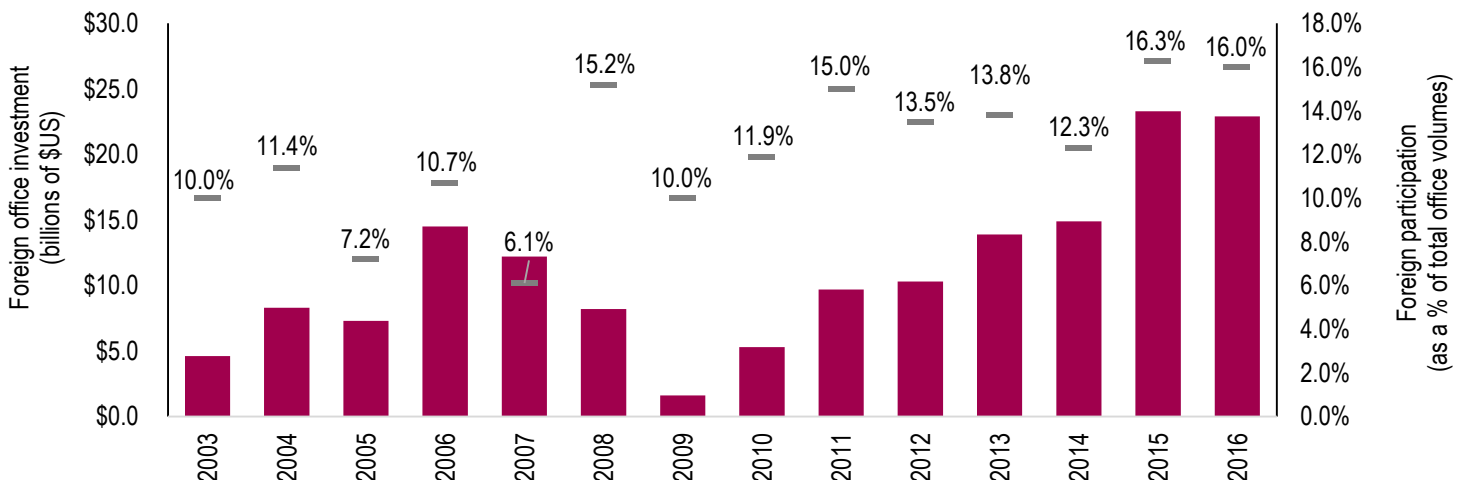
The foreign acquirer landscape took a shift in full-year 2016, with German capital surpassing Canadian as the most active and Asian investors accounting for four of the ten most active.



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

### Foreign office investment stable at elevated levels

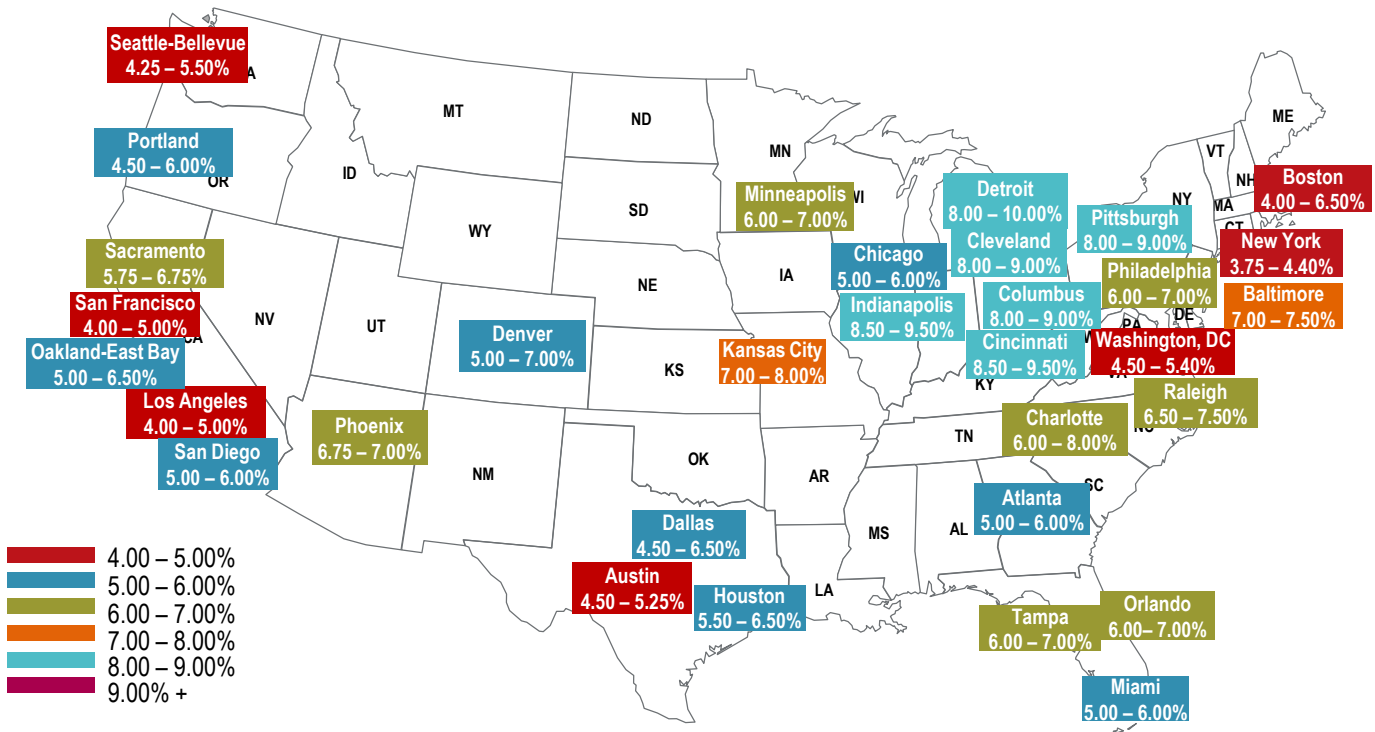
Office continues to outperform peer sectors and at a sustained, structural pace relative to prior cycle: 16.0 percent of full-year 2016 acquisitions by offshore investors



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## Core CBD office cap rates

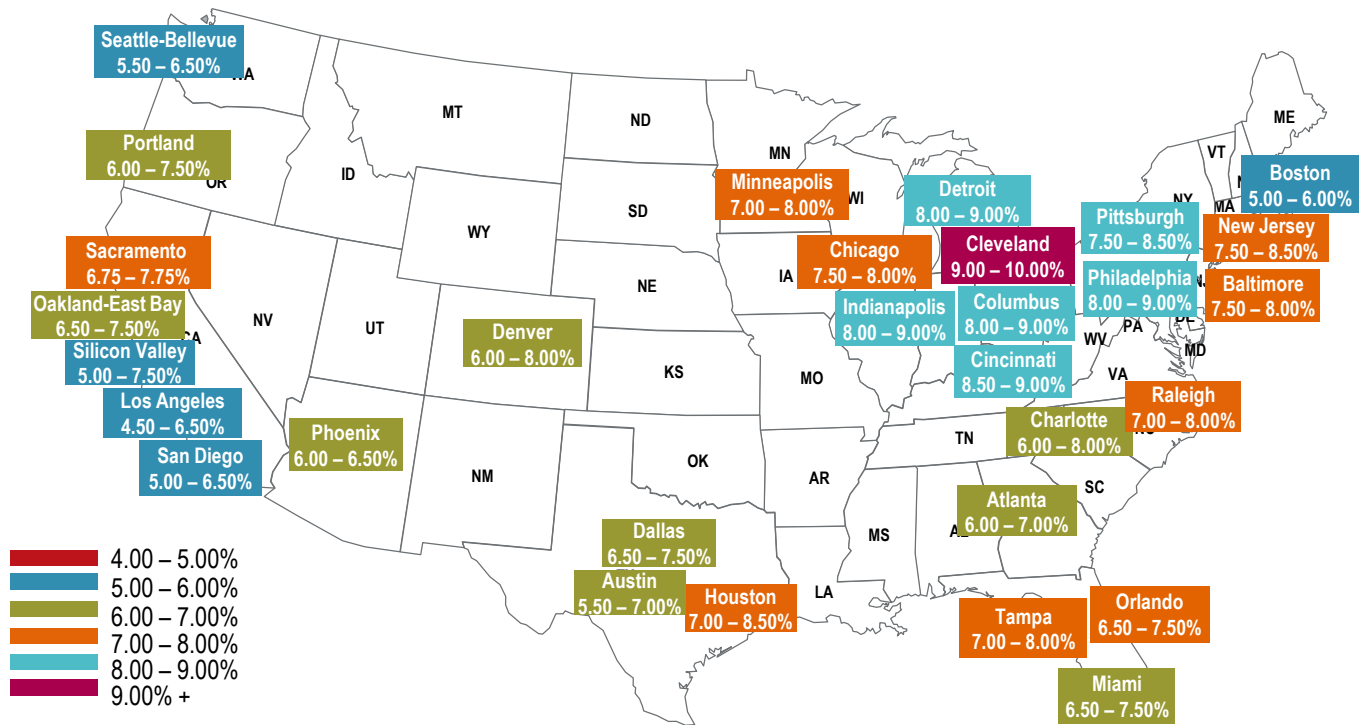
Coastal, primary markets are now all seeing Core product transact at sub-5.0 percent levels



Source: JLL Research, January 2017

## Core suburban office cap rates

Suburban cap rates generally stable, with best-in-class product in high-growth secondary markets seeing assets transact as low as 5.0 percent to as high as 8.0 percent



Source: JLL Research, January 2017

### Notable primary market transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
Boston	One Kendall Square	Alexandria	DivcoWest	\$725,000,000	644,771	\$1,124
New York	1250 Broadway	Global Holdings	Jamestown / MHP / David Werner	\$565,000,000	645,977	\$875
San Francisco	One Front Street	Paramount	Invesco / State of Florida	\$521,000,000	651,732	\$799
Los Angeles	The Bluffs at Playa Vista	Minskoff	JPMorgan Chase	\$413,000,000	500,943	\$824
Los Angeles	Lantana Entertainment Media Campus	Brightstone	Jamestown	\$403,000,000	482,377	\$835
Washington, DC	Two Independence Square	KTB / Kiwoom / Meritz	Piedmont	\$385,600,000	579,000	\$665
San Francisco	Foundry III	American Realty Advisors	Tishman Speyer / JPMorgan Chase	\$349,893,786	291,093	\$1,202
Los Angeles	Citigroup Center	Coretrust	Thines	\$336,000,000	891,056	\$377
New York	441 9th Avenue	Cove / Baupost Group	EmblemHealth	\$330,000,000	350,000	\$943
San Francisco Peninsula	Genentech South Campus	Genentech	HCP	\$311,300,500	456,788	\$682

### Notable secondary market transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
Dallas–Fort Worth	State Farm Campus	Mirae / Transwestern	State Farm	\$825,000,000	2,200,000	\$375
Miami	Southeast Financial Center	Ponte Gadea	JPMorgan Chase	\$516,600,000	1,225,000	\$422
Orange County	Park Place (6 properties)	Allianz (45% interest)	LBA Realty / Principal	\$338,680,233	1,910,210	\$394
Atlanta	One Atlantic Center	Starwood Capital Group	Hines	\$318,100,000	1,102,246	\$289
Minneapolis	City Center	HNA Group	Shorenstein	\$315,000,000	1,617,888	\$195
Atlanta	191 Peachtree Tower	Banyan Street Capital / Oaktree Capital	Cousins Properties	\$268,000,000	1,209,721	\$222
Orange County	Google Center	Jacaranda Holdings	Scholle Corporation	\$260,000,000	573,000	\$454
Austin	100 Congress	Invesco	MetLife	\$230,460,160	411,536	\$560
Atlanta	Atlanta Financial Center	Sumitomo Corporation of Americas	Hines	\$222,500,000	908,659	\$245
Atlanta	Three Ravinia	Preferred Apartment Communities	CBRE Global Investors	\$210,100,000	813,145	\$258

### Notable portfolio transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
National	Parkway Properties Portfolio	Cousins Properties	Parkway Properties	\$1,950,000,000	-	-
Naitonal	U.S. Alecta Multisector Portfolio	Blackstone	Alecta	\$1,700,000,000 (overall)	-	-
National	West Coast Hines Global REIT Portfolio	Blackstone	Hines Global REIT	\$1,162,000,000	3,000,000	\$387



# Industrial

# INDUSTRIAL

*Total volumes for 2016 on pace to see second largest tally since 2008*

U.S. Industrial property market		U.S. Industrial investment	
-70	2.1%	\$46.3	-31.1%
12-month change in total vacancy (bps)	12-month net absorption (as a % of inventory)	Investment sales (FY, billions of \$US)	FY investment sales growth (%)
1.8%	8.7%	4.9%	-22
12-month completions (as a % of inventory)	12-month rent growth (p.s.f.)	Average cap rate (%)	12-month change in cap rate (bps)

**National annualized rent growth set new record in 2016.** U.S. vacancy set a new record-low of 5.6 percent. As U.S. demand continues to rise and land values soar, major urban areas are running low on options for Class A warehouse space, driving annualized rental growth increases in the vast majority of JLL-tracked markets.

## Total volumes for 2016 set second largest tally since 2008.

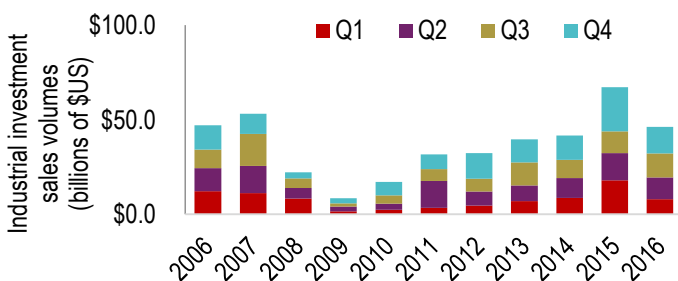
Fourth-quarter volume represented a nearly 11.0 percent higher tally than in the third quarter. U.S. industrial investment volumes maintained three consecutive quarters of growth after a slow start to the year. 2016 investment volumes were down just under a third from 2015's record-setting tally; however, the year represented the second highest total since the global financial crisis (GFC), finishing at \$46.3 billion. Additionally, if deals over \$250.0 million are excluded from final totals, 2016 was up 1.2 percent over 2015.

## Single-asset transactions primary driver of volume in 2016, as shift in overall deal size persistent.

The first half of the year exhibited an overwhelming skew toward single-asset transactions, which represented the vast majority of investment in the United States. The fourth quarter trended very near to the 10-year rate of normalcy, as familiar acquirers like GLP and Blackstone closed on two \$1.0 billion+ portfolios. A resurgence of interest in large-scale portfolios in the second half of 2016 will carry on to 2017, as the industrial market fundamentals continue to attract investor confidence.

## Industrial investment sales

With \$46.3 billion of activity at year-end, industrial investment sales volumes finished with the second largest annual tally since 2008



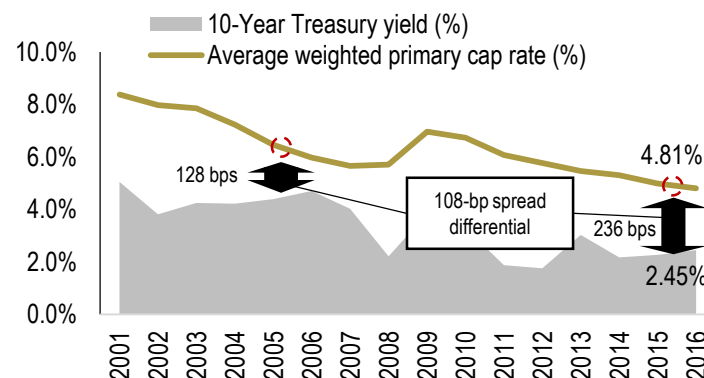
Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

**Single-market-focused portfolios continue to drive volumes.** 70.0 percent of primary markets, 56.0 percent of secondary markets and 44.0 percent of tertiary markets tallying 5.0+ percent annualized rental growth. As investors continue to broaden investment strategies and the industrial sector continues to grow in its sophistication, market-specific and regional portfolio transactions are one investment strategy investors are adopting to gain exposure to an expanding population, growing geographic economy or rapidly changing supply chain.

**Class A cap rates continue to support stabilized ranges despite recent escalation in cost of debt.** Yields on the U.S. 10-Year increased nearly 100 bps by year-end from their lowest point at the close of Q2. This has paralleled more recent increases in the cost of debt. With capitalization rates for all assets when taken over the U.S. risk-free rate still far exceeding the spreads experienced in the previous cycle, investors will have the comfortable ability for further compression of spreads over the next 18 months, despite record cap rates in most markets.

## Persistent global market volatility drives healthy spreads

Primary market cap rates displayed resounding stability despite post-election jumps in debt costs and 10-Year Treasury yields, with spreads remaining over 100 basis points relative to prior peak



Source: JLL Research, NCREIF, Board of Governors of Federal Reserve System

# TOP 5 INDUSTRIAL THEMES

1

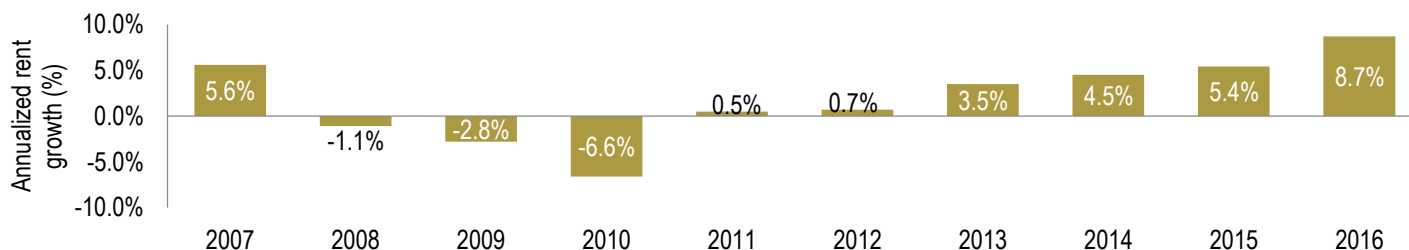
## National annualized rent growth sets new record in 2016

Going into 2016, the bar was set high with 2015's record-breaking numbers. By year-end 2016, final tallies helped to further support the narrative that demand for warehouse and distribution space is not expected to slow down any time soon. A wave of new development projects was exhibited in most industrial markets, with major markets such as Atlanta, Chicago and Dallas alone contributing to nearly one-third of total new deliveries, with a 26.3 percent preleased rate at delivery. This has helped push U.S. vacancy to a new record-low of 5.6 percent, while most large metropolitan markets are trying to strike a "construction vs. leasing" timing balance to avoid the appearance of overbuilding. As demand continues to rise and land values soar, major urban areas are running low on options for Class A warehouse space, driving annualized rental growth increases in the vast majority of JLL-tracked markets.

"Mega-box" and "big-box" spaces continue to be in hot demand, with five leases in excess of 1.0 million square feet signed this quarter. Overall, while there were fewer expansions, leasing activity by "new to market" tenants increased by 670 basis points compared to last quarter. At the industry level, consumer durables- and construction-related companies were responsible for a combined total of nearly 22.0 percent of all leasing activity in the fourth quarter. With a strong 2016, 2017 is expected to be another year of big numbers—with 194.0 million square feet still in the construction pipeline, putting upward pressure on rental rates and providing tenants with new supply options.

### Modest growth in fundamentals fuels record-low vacancies

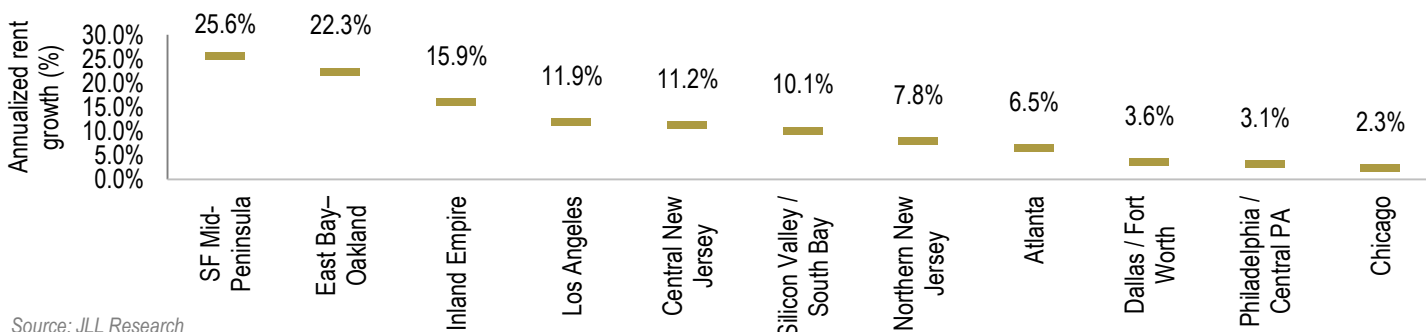
Despite an increase in new deliveries, vacancy continued to decrease nationally to a record 5.8 percent in the third quarter



Source: JLL Research

### Primary markets annualized rental gains in 2016

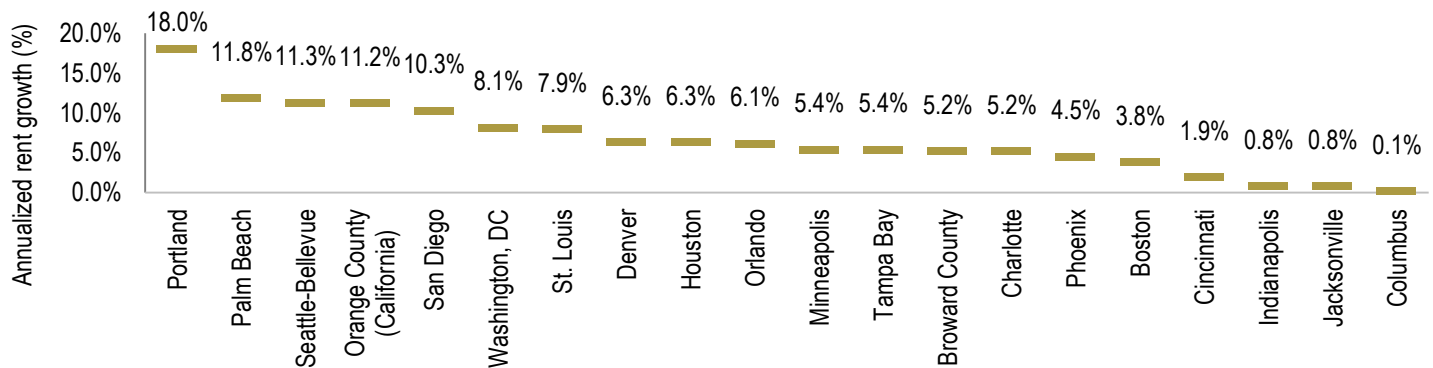
Several primary markets exceeded 5.0 percent annualized rent growth at the close of Q4 2016



Source: JLL Research

## Secondary markets annualized rental gains in 2016

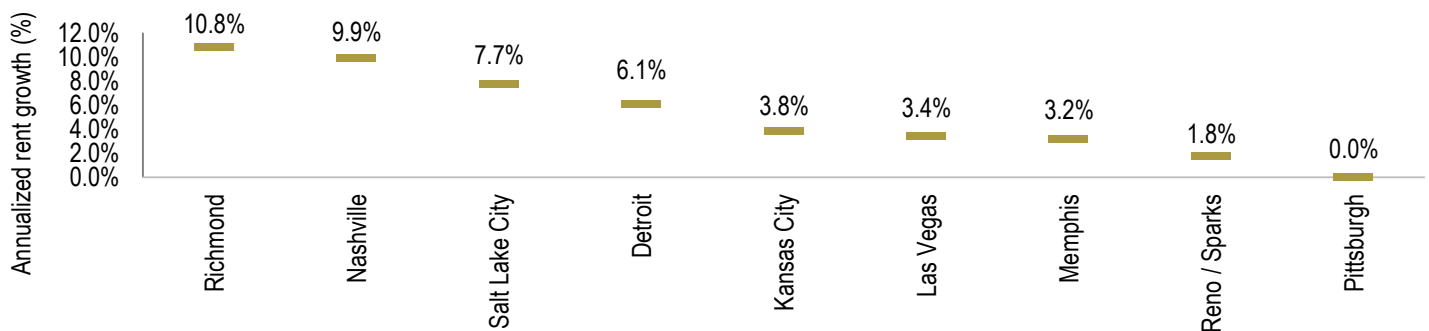
Strong 2016 rent growth in secondary markets was indicative of record industrial demand



Source: JLL Research

## Tertiary markets annualized rental gains in 2016

Strong annualized rent growth even in tertiary markets continued to showcase record demand in 2016



Source: JLL Research

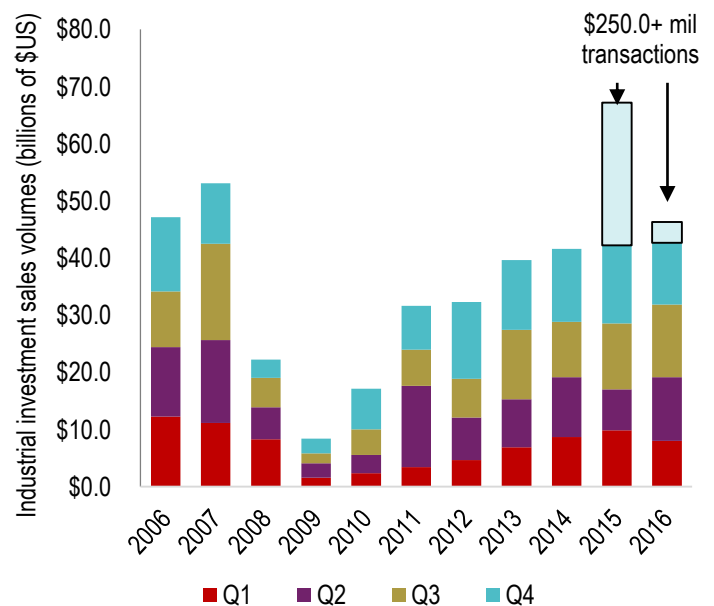
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## Shift in overall deal size persistent throughout 2016

Looking back on 2016 as a whole, the year can be defined through a few key takeaways: these include global volatility, pronounced rental growth and retained investor confidence in the industrial sector. U.S. industrial investment volumes maintained three consecutive quarters of growth after a slow start to the year, only the third time since 2007 that each quarter exhibited positive investment growth. 2016 investment volumes were down just under a third from 2015's record-setting tally; however, the year represented the second highest total since the global financial crisis (GFC), finishing at \$46.3 billion. Additionally, if deals over \$250.0 million are excluded from final totals, 2016 was up 1.2 percent over 2015. Fourth-quarter volume represented a nearly 11.0 percent higher tally than the third-quarter. 2016 was one of only three years since 2007 to exhibit consecutive quarterly growth. The sustained investment activity despite consistent volatility throughout 2016 is indicative of the asset class's ability to weather global economic, political and financial uncertainty. Institutional investment accelerated acquisition momentum in the second half of the year after sitting on the sidelines for the first two quarters, capped by the fourth-quarter GLP closing on a \$1.1 billion Hillwood portfolio which tailored to ecommerce-related assets. Additional investor confidence continues to propel the sector, as exhibited through significant institutional interest surrounding the possible sale of GLP.

## Volumes for 2016 set second largest tally since 2008

Total investment volume down nearly one-third from last year's record total; continued growth in fourth quarter represented the third consecutive period of quarter-to-quarter gains



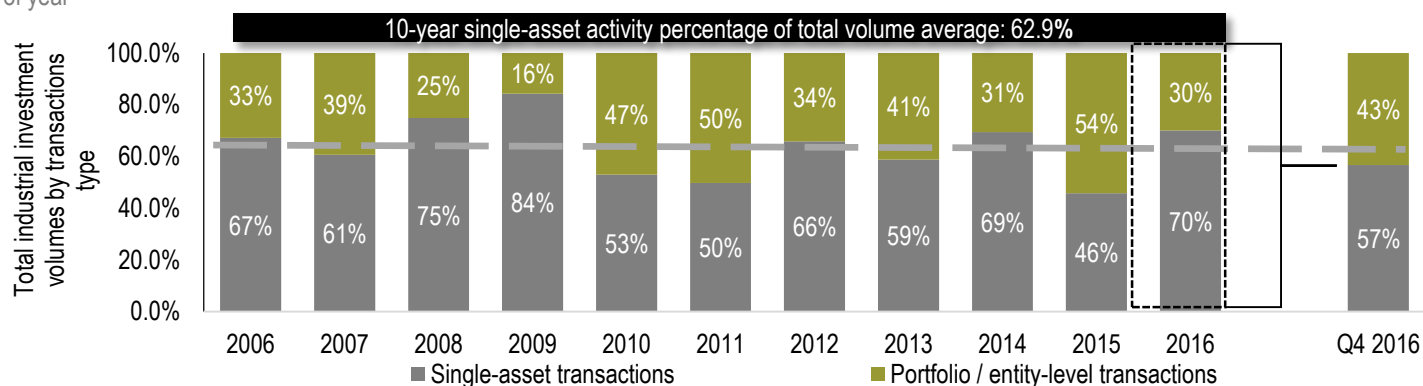
Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

The first half of the year exhibited an overwhelming skew toward single-asset transactions, which represented the vast majority of investment in the United States. This can be attributed to the volatility experienced in global markets after concerns of China's weak growth, and then the unexpected Brexit leave vote left several investors on the sidelines during the first half of the year. As volatility resided, the second half of the year exhibited a shift in investor activity through the participation in the industrial sector via expanded portfolio acquisition volumes. The fourth quarter trended very near to the 10-year rate of normalcy (43.0 percent of all transactional volume), as familiar acquirers like GLP and Blackstone closed on two \$1.0 billion+ portfolios.

2016 exhibited an overall shift in deal size from the prior year, as only 15.0 percent of all volumes were represented in deals exceeding \$150.0 million. A pronounced increase in the total share of transactions falling between \$20.0 and \$99.9 million was representative of 2016's exhibited rise in single-asset and single-market-focused portfolio transactions that was particularly pronounced in the first half of the year. A significant resurgence of interest in large-scale portfolios in the second half of 2016 will carry on to 2017, as the industrial market fundamentals continue to attract investor confidence.

### Single-asset transactions primary driver of 2016 activity

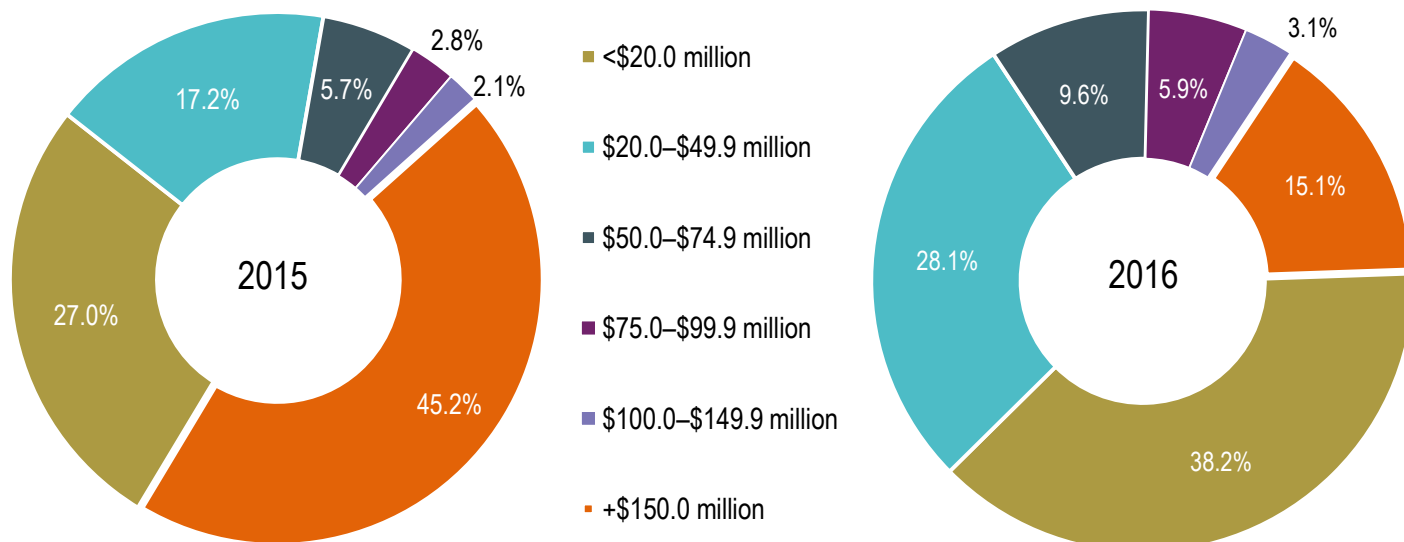
However, second-half large-scale portfolios transacted with familiar acquirers, normalizing portfolio levels toward the 10-year average in latter half of year



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

### Shift in overall deal size persistent throughout 2016

The majority 2016 volumes consisted of single-asset and single-market-focused portfolio transactions; second-half demand for large-scale transactions drove resurgence of \$150.0+ mil deals



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## 4

## Single-market-focused portfolios continue to drive volumes

Investors continued a more selective approach to the opportunities they chose to underwrite, as investor sentiment continues to mount that we are in the later stages of the cycle. This was despite the record demand and tightness displayed throughout all industrial markets, with 70.0 percent of primary markets, 56.0 percent of secondary markets and 44.0 percent of tertiary markets tallying 5.0+ percent annualized rental growth, with nearly 95.0 percent of markets showing annualized growth for the year. A continued swing away from capturing residual value through accelerated cap rate compression is occurring, and instead focus on maximizing asset cash flows through rent growth and credit-grade tenancy will continue through 2017.

Continued compression is, however, expected in product-restricted markets such as Seattle or infill Los Angeles, as the rarity of opportunities will merit more aggressive underwriting, and single-market-focused portfolios will continue to drive volume if available in these markets. The shift toward building scale through single-market-focused and regional portfolio acquisitions has largely benefited investors seeking less competitive yet fundamentally sound non-core markets. As an example, South Bay–Silicon Valley has constituted the highest single-market-focused portfolio volumes of JLL-tracked markets with over \$829.0 million in 2016 alone. As investors continue to broaden investment strategies and the industrial sector continues to grow in its sophistication, market-specific and regional portfolio transactions are one investment strategy investors can adopt to gain exposure to an expanding population, growing geographic economy or rapidly changing

## 5

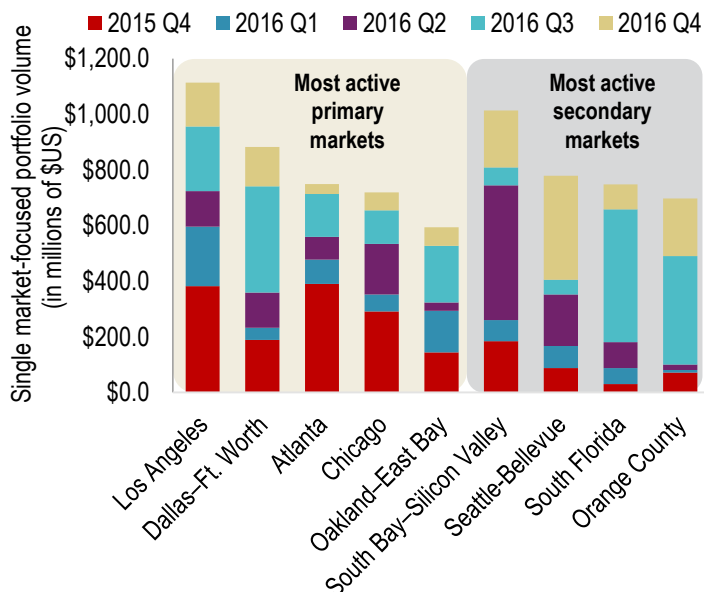
## Class A cap rates continue to support stabilized ranges despite recent escalation in cost of debt

2016 emerged as experiencing heightened volatility, with fears regarding emerging market growth, questions concerning the stability of the Eurozone due to the unexpected Brexit vote in late June, one of the largest shippers in the world going bankrupt, unexpected results in the U.S. presidential election and a December raise in the Federal Reserve's effective interest rate. Yields on the U.S. 10-Year increased nearly 100 basis points by year-end from their lowest point at the close of Q2. This has paralleled more recent increases in the cost of debt. With capitalization rates for all assets when taken over the U.S. risk-free rate still far exceeding the spreads experienced in the previous cycle, investors will have the comfortable ability for further compression of spreads over the next 18 months, despite record cap rates in most markets, particularly in the core industrial markets where investors are willing to purchase assets at top dollar to gain market access. Despite the increased volatility of the global economic, political and financial markets prevalent throughout 2016, institutional-grade asset cap rates remained stable in all markets, especially pronounced within core markets. This trend indicates the steadfast appetite for institutional-grade industrial assets throughout the investment market. Additionally, the unsolicited bid on GLP and the current discounted stock price under net asset value (NAV) are positive signs that the industrial sector remains an attractive target for institutional investment.

Nationally, in a broader asset context, Class A industrial assets across almost all U.S. markets continued to test or exceed JLL observed ranges, based on stabilized cap rate ranges analyzed throughout all markets. Despite the continuance of cap rate compression for Class A assets, investors have been more selective with opportunities. Investors will continue to be selective, as investor sentiment remains that we are in the later stages of the cycle. A continued swing away from capturing residual value through accelerated cap rate compression, and instead focused on maximizing asset cash flows through rent growth, occupancy gains and credit-grade tenancy will continue in the near-term. Continued compression is, however, expected in product-restricted markets.

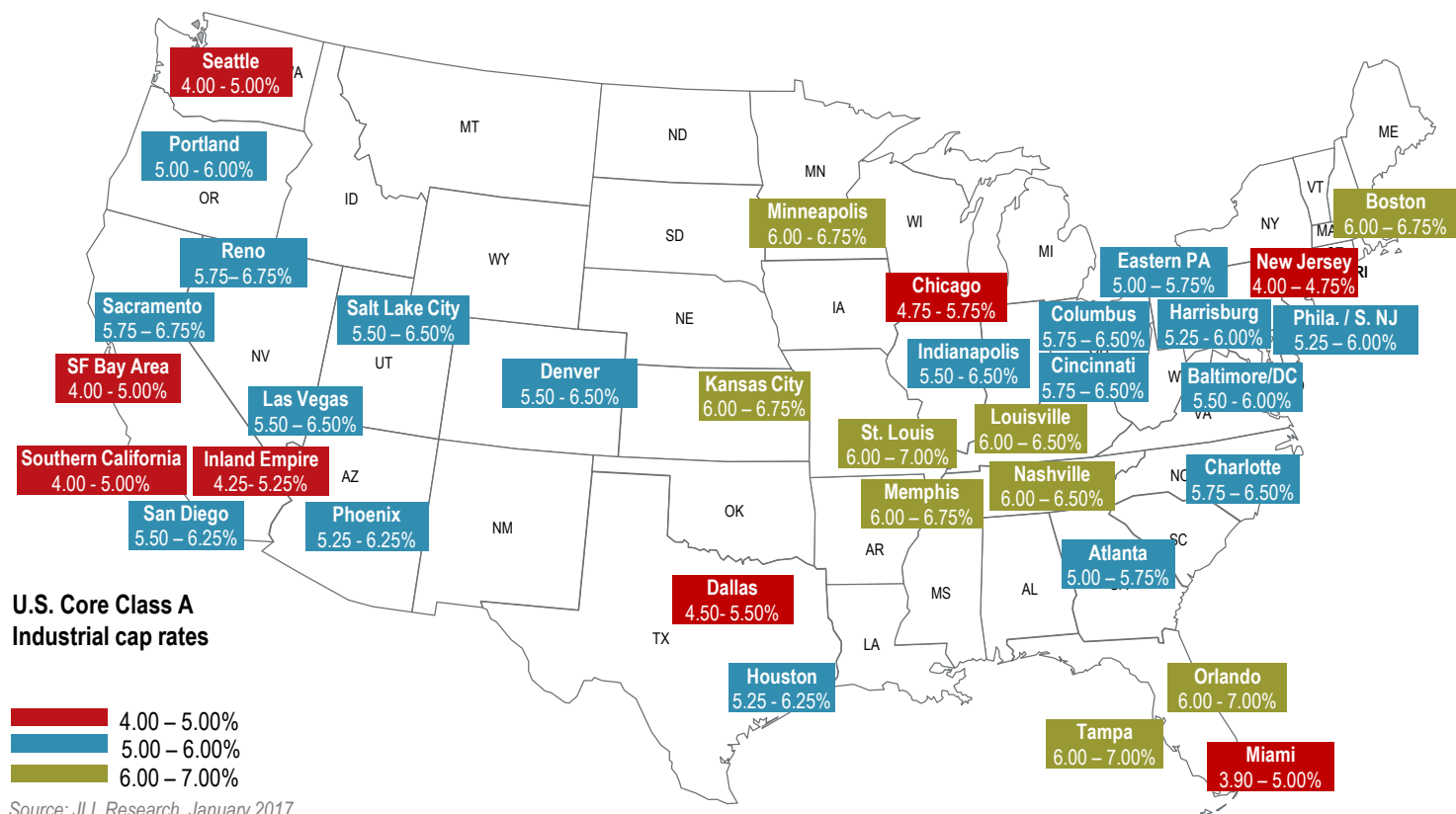
## Single-market-focused portfolios continue to drive volumes

Core markets and select geographically isolated secondary markets with growing population centers attracted the bulk of portfolio investment activity via single-market transactions



Source: JLL Research (All portfolio transactions larger than 200,000 s.f.; excluding data centers; markets with \$500.0M+ in activity in past five quarters)

## Class A cap rates continue to support stabilized ranges despite recent escalation in cost of debt



## Notable portfolio transactions, Q4 2016

Market	Portfolio	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
National	LBA Realty / Ind. / Western Markets / 71 bldgs.	Blackstone	LBA Realty	\$1,500,000,000	18,894,936	\$79
National	USAA / Ind. / SE Majority Large Warehouse / 19 bldgs.	Gramercy Property Trust	USAA Real Estate	\$675,000,000	11,900,000	\$57
National	Spirit Realty / Ind. / 84 Lumber 108 bldgs.	84 Lumber	Spirit Realty Capital	\$205,700,000	3,475,226	\$59
Seattle-Bellevue	Cornerstone / Ind. Parks / Seattle / 11 bldgs.	ING Group	Barings	\$132,699,999	939,958	\$141
Atlanta	STAG / Single Tenant Ind. / Atl. & Atlanta / 6 bldgs.	Pure Industrial REIT	STAG Industrial	\$81,000,000	1,569,558	\$52

## Notable single-asset transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
Columbus	11901 National Rd SW, Etna, OH	GC Essential Asset REIT II	Prologis	\$88,898,030	855,000	\$104
New Jersey	350 Starke Rd, Carlstadt, NJ	Bentall Kennedy	Meadowlands Partners LLC	\$76,000,000	332,796	\$228
Philadelphia / C. PA	2086 Corporate Center Dr W, Tobyhanna, PA	Exeter Property Group	USAA Real Estate	\$72,500,000	1,369,177	\$53
Chicago	3050 Corporate Dr, DeKalb, IL	GC Essential Asset REIT II	Clayco / Venture One	\$69,400,000	987,000	\$70
All Others	6100 McIntosh Rd, Sarasota, FL	Agellan Comm'l REIT	Meridian Cos / Hudson Realty Capital	\$52,500,000	907,234	\$58



# Multifamily

# MULTIFAMILY

*Investment sales in secondary markets reached \$52.7 billion in 2016, an all-time high*

U.S. Multifamily property market		U.S. Multifamily investment	
-10	1.6%	\$150.3	4.3%
12-month change in total vacancy (bps)	12-month net absorption (as a % of inventory)	Investment sales (FY, billions of \$US)	FY investment sale growth (%)
1.8%	3.8%	4.4%	-9
12-month completions (as a % of inventory)	12-month rent growth (per unit)	Average cap rate (%)	12-month change in cap rate (bps)

**Overall strength in rent growth despite a decelerated pace throughout 2016.** National annual rent growth was reported at 3.8 percent for the most recent period. The national rate dipped below 4.0 percent for the first time since 2014. The market has gradually shifted in favor of tenants in select markets due to sustained deliveries of Class A product.

**Despite sustained deliveries, leasing fundamentals remain stable.** In spite of an environment of sustained deliveries, absorption has remained resilient. The national absorption rate of 1.6 percent remained unchanged quarter-over-quarter. Absorption remains positive across the top 40 tracked markets.

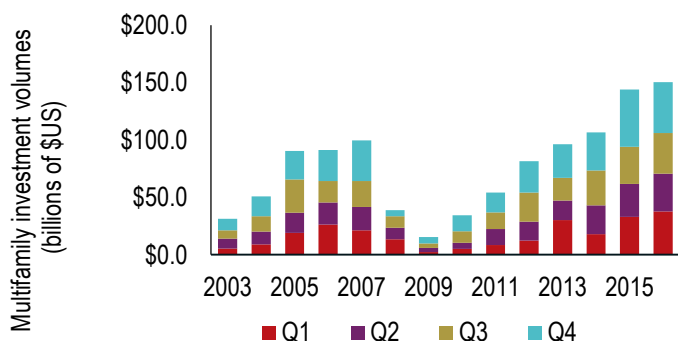
**Southeast region's persistent growth for 2016 highlights another record in volumes.** The multifamily investment landscape reached yet another year of record-setting volumes. With \$44.2 billion of overall deal activity occurring in the fourth quarter, multifamily investment sales set a cumulative record of \$150.3 billion for 2016. This outpaced 2015's total by 4.3 percent.

**Led by the West Coast, secondary market activity set its own record.** Secondary market activity finished the year with \$11.5 billion of activity in the fourth quarter. Year-end investment sales volumes in secondary markets reached \$52.7 billion, up 8.2 percent compared to 2015 figures. This year-end figure represents a record high for secondary market activity.

**Offshore investment continues to trend up for multifamily product.** Foreign investment continued to flow into multifamily product. Inbound capital flows contributed nearly \$7.3 billion of acquisitions in 2016. Canadian and Middle Eastern capital remain the most active, with select Asian sources of capital emerging.

## Multifamily investment sales

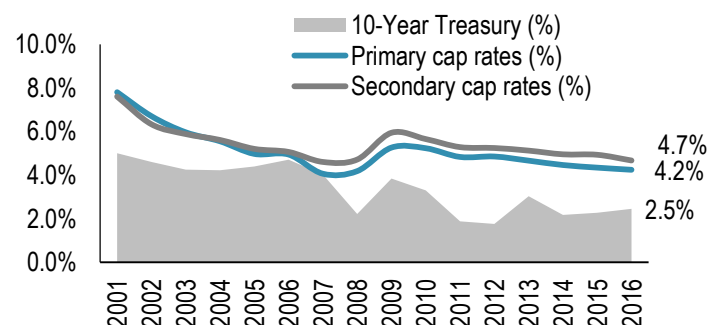
Multifamily investment sales increased another 4.3 percent in 2016, capped off by \$44.2 billion of transactions in the fourth quarter



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## Multifamily cap rates

Overall multifamily cap rates remained stable in 2016 with compression evident in select secondary markets, including Minneapolis, Portland and West Palm Beach



Source: JLL Research, NCREIF, Board of Governors of Federal Reserve

# TOP 5 MULTIFAMILY THEMES

1

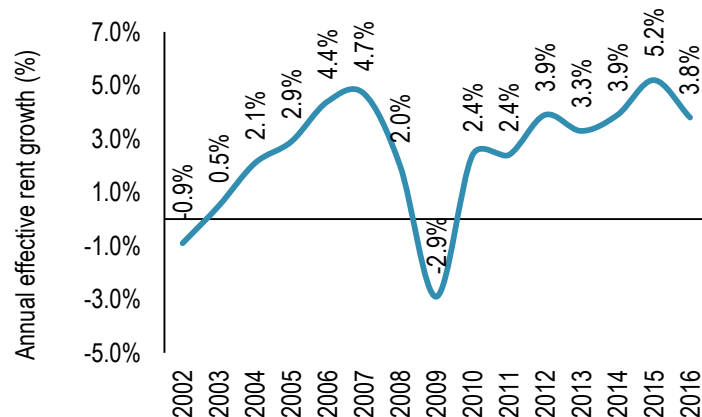
**Overall strength in rent growth despite a decelerated pace throughout 2016**

National annual rent growth was reported at 3.8 percent for the most recent period. The national rate dipped below 4.0 percent for the first time since 2014. The market has gradually shifted in favor of tenants in select markets due to sustained deliveries of Class A product. In spite of the decelerated pace of rent growth throughout 2016, the current 3.8 percent figure demonstrates the market's overall strength, as each successive year since 2012 has demonstrated rent growth gains of at least 3.3 percent. New drivers of national rent growth remain in the West region. In spite of the end of a sustained run of rent growth for the trio of Bay Area markets, six markets in the West region drove rent growth gains, with Salt Lake City, Phoenix and Seattle-Bellevue each seeing year-over-year gains of at least 130 basis points.

In conjunction with this, the national vacancy rate was reported at 4.4 percent. The rate softened 10 basis points year-over-year, despite more than 385,000 units delivering during the last two years. Houston leads this trend, softening 100 basis points year-over-year to 6.7 percent. While fundamentals have softened slightly from 2015 levels, sub-5.0 percent vacancy persists in spite of sustained supply gains. Supply concerns will continue to linger in select markets and well-served urban submarkets therein as 2017 starts, but the demand for multifamily product overall remains positive.

## Multifamily rent growth remains positive but is slowing

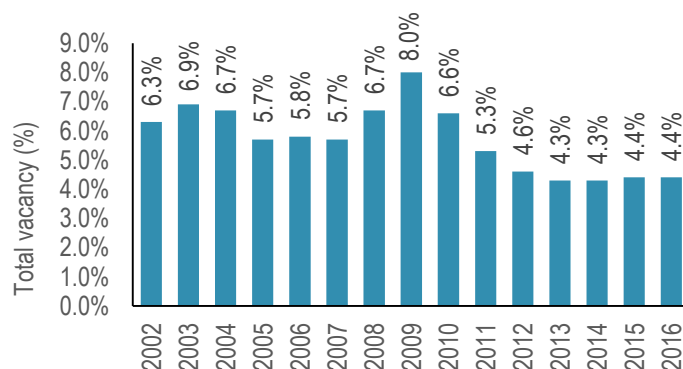
Effective rent growth of 3.8 percent marks the fifth straight year of 3.0+ percent growth levels



Source: JLL Research, Reis

## National vacancy rates demonstrate strength at 4.4 percent

In spite of a sustained run of deliveries since 2014, national vacancy rates have held stable



Source: JLL Research, Reis

2

**Despite sustained deliveries, leasing fundamentals remain stable**

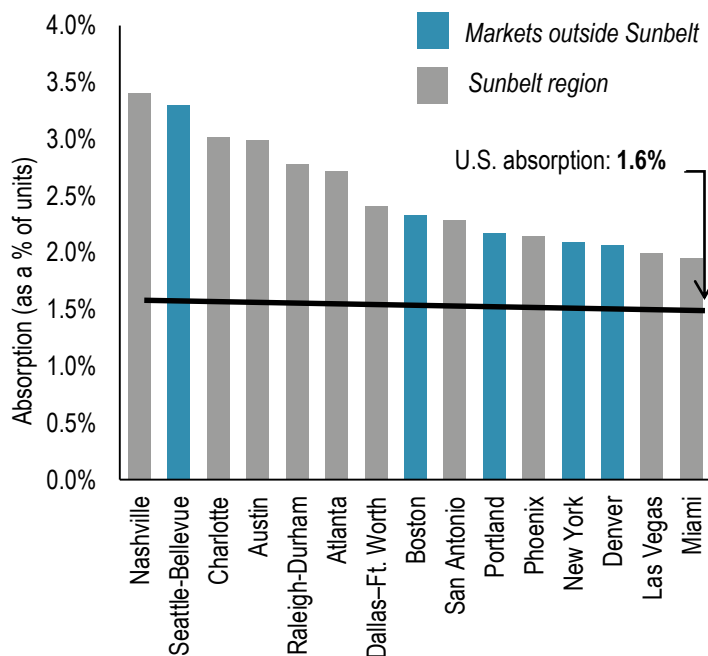
The rate of national completions with respect to inventory was 1.8 percent, declining 10 basis points year-over-year and 30 basis points from a 2.1 percent cycle high in the first quarter of 2016. Sunbelt markets are currently propelling development, as Charlotte and Nashville outpace markets for recent development activity—at 4.3 and 4.1 percent of respective market inventories. Additionally, Austin (3.6 percent) and San Antonio (3.4 percent) have seen sizable development gains come to market over the past year. In spite of this environment of sustained deliveries, absorption has remained resilient. The national absorption rate of 1.6 percent remained unchanged quarter-over-quarter, while softening 20 basis points year-over-year—a level not seen since 2014. In spite of this, absorption remains positive across the top 40 tracked markets. Markets in the Southeast region lead annualized absorption rates, as Nashville (3.4 percent), Charlotte (3.0 percent), Raleigh-Durham (2.8 percent) and Atlanta (2.7 percent) outperform the national average.

Looking at the development pipeline, primary markets New York, Dallas-Ft. Worth and Houston each have in excess of 30,000 units under construction. Among construction leaders, New York leads with respect to current inventory due to a sizable upswing in activity in Queens; comparatively, Los Angeles is only seeing construction at 2.1 percent of

current inventory, lagging peer markets. While the ability of certain markets to absorb stock will continue to be tested as deliveries continue in 2017, the resilience of major markets throughout 2016 demonstrates that demand drivers remain in place to fill multifamily product at the moment.

### Sunbelt region remains the key driver of multifamily absorption

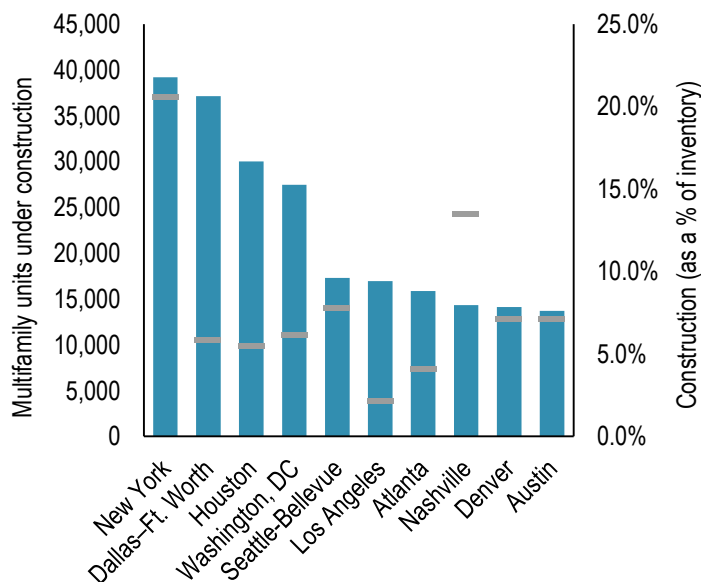
Led by Nashville's 3.4 percent, the Sunbelt continues to drive absorption in spite of sustained deliveries



Source: JLL Research, Reis

### New York's development pipeline outpaces peer markets

In comparison, Los Angeles lags peer markets at 2.1 percent of current inventory under construction



Source: JLL Research, Reis

3

### Southeast region's persistent growth for 2016 highlights another record in volumes

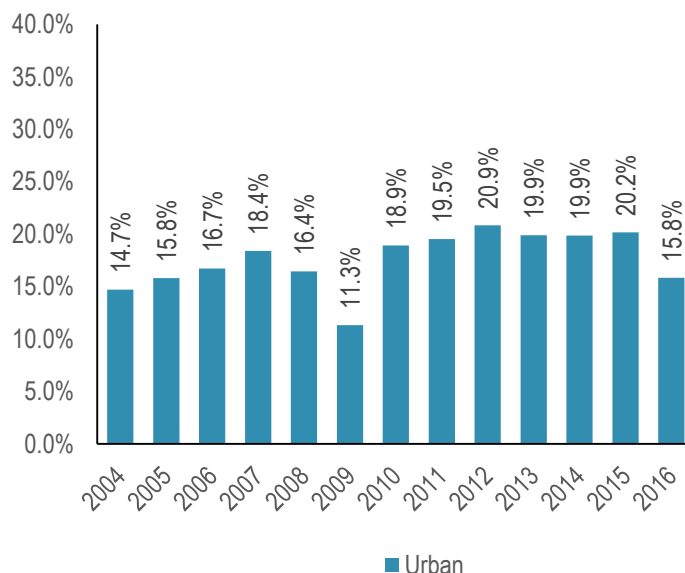
The multifamily investment landscape reached yet another year of record-setting volumes with a strong push at year-end. With \$44.2 billion of overall deal activity occurring in the fourth quarter, multifamily investment sales set a cumulative record of \$150.3 billion for 2016. The full-year 2016 volume outpaced 2015's total by 4.3 percent. With this, the fourth-quarter figure was the second highest recorded for the current cycle. While another \$22.1 billion in investment volumes transacted in CBDs on the year, this represented a nearly 4.5 percent decline in CBD activity compared to 2015, indicative of a notable diversification into the suburbs. Despite volume gains, multifamily cap rates remain stable across primary and secondary markets nationally, currently averaging 4.4 percent.

While unable to eclipse last year's record volumes, the New York market still managed to see \$14.3 billion in the year, the second highest total of the last 16 years for the market. Primary markets in the Southeast otherwise drove volumes, highlighted by \$8.0 billion in investment sales volumes in Atlanta, a 20.1-percent increase year-over-year. With this, Atlanta saw the largest cap rate compression among primary markets, compressing 31 basis point over the last 12 months to 4.8 percent. Of primary multifamily markets, Miami saw the greatest increases in activity, growing 44.3 percent to \$1.5 billion.

Favorable shifts toward renting have supported a sustained run of strength in leasing fundamentals, despite the recent modest softening of rent growth. The relatively weak supply and affordability of single-family houses will remain a barrier to homeownership, benefiting the multifamily space and impacting supply-demand dynamics in 2017.

### Investment sales activity moving away from CBDs

A deeper diversification into the suburbs evident in 2016; with 15.8 percent of full-year investment sales in the CBD, this lags the prior five years, which saw levels at a minimum of 19.5 percent



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

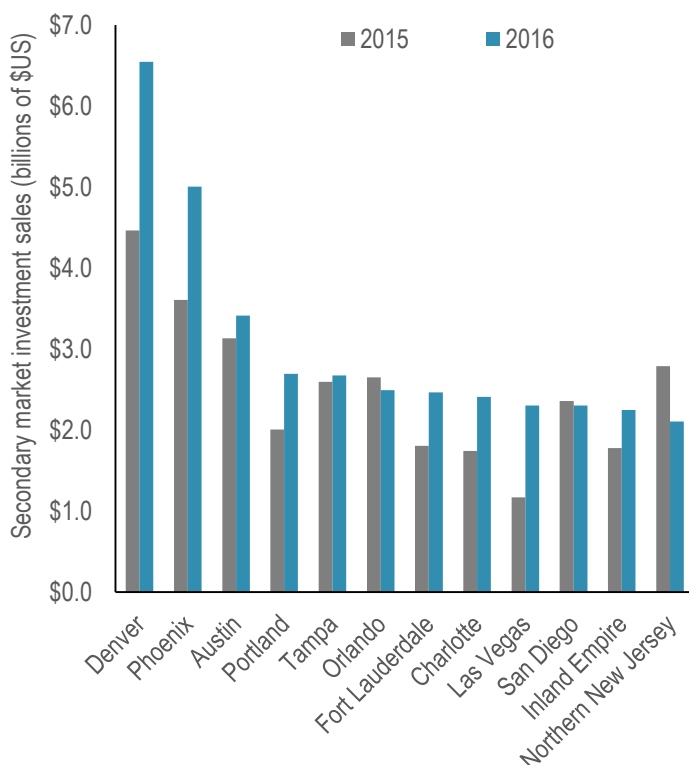
## 4

## Led by the West Coast, secondary market activity sets its own record

Secondary market activity finished the year on a strong note with \$11.5 billion of activity in the fourth quarter. As a result, year-end investment sales volumes in secondary markets reached \$52.7 billion, up 8.2 percent compared to 2015 figures. This represents a 16-year high, while 12 secondary markets experienced year-over-year gains in excess of 26.0 percent—concentrated most in the West region. Denver and Phoenix led secondary market activity with \$6.5 and \$5.0 billion, respectively, of activity. This highlights the sustained attention these markets are receiving from investors due to their favorable local economies and above-average household formations. While Denver's gains have been concentrated in midrise product (accounting for \$1.5 billion of annual activity), 85.3 percent of Phoenix's volumes remained concentrated in garden-style stock with only select high-rise activity, such as Invesco's acquisition of the 25-story CityScape – Residences in Downtown Phoenix for \$75.2 million. In addition to these two secondary market leaders, gains were evident in Las Vegas (97.3 percent), Portland (34.2 percent), Oakland–East Bay (31.9 percent) and Inland Empire (26.6 percent). The continued attention on the West Coast speaks to the favorable economies and demographics of these markets, complemented by favorable leasing fundamentals and leading rent growth levels. This focus is expected to continue in the near term.

### Secondary market activity increases 8.2 percent in 2016

Led by Denver and Phoenix, 12 separate secondary markets gained in excess of 26.0 percent



## 5

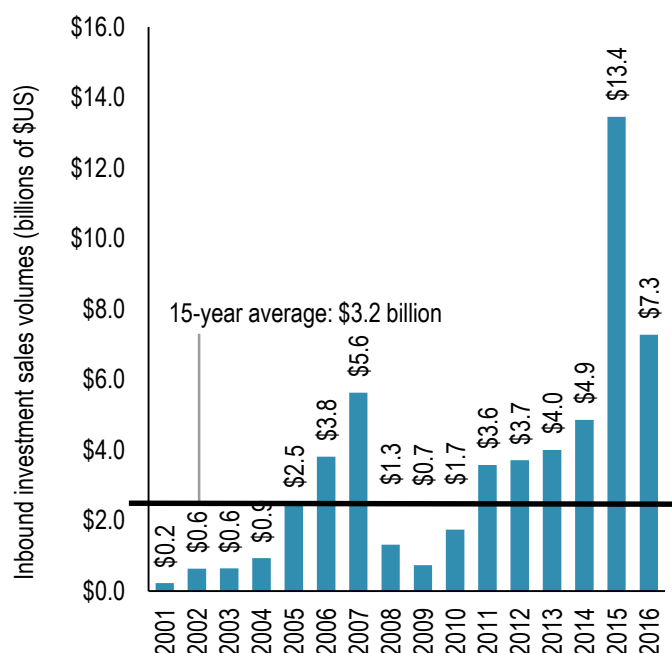
## Offshore investment continues to trend up for multifamily product

While unable to surpass the clear outlier of 2015, foreign capital continued to flow into the multifamily sector at increasing levels. Offshore investors acquired nearly \$7.3 billion of multifamily product in 2016. This represents the second highest total on record, piling compared to 2015's \$13.4 billion. Investors from abroad have expanded their familiarity with the sector and, with that, their respective portfolios of assets. This is critical given the absence of institutionally owned, multifamily rental housing in the vast majority of markets globally.

Canadian investors accounted for 41.8 percent of total foreign investment volumes for 2016, \$3.0 billion of activity. Canadian investors were active in several segments of the market this quarter: Bentall Kennedy and Multi-Employer Property Trust acquired The Addison, a pair of high-rise apartments completed in 2011 in New York's Brooklyn submarket. This transaction was the largest single-asset, primary market transaction on the quarter. Canadian investors such as CPP Investment Board, H&R REIT and Starlight Investments also were active: Starlight and H&R each acquired assets in the Sunbelt region across Atlanta, San Antonio and Tampa. In addition to the Canadians, Middle Eastern capital remains active in this sector, while demand from Asian-based capital has emerged: Singapore-based Mapletree Investments acquired a national, seven-property student housing portfolio for \$653.2 million. As foreign investors develop a deeper understanding of the multifamily sectors, offshore capital is expected to continue to diversify the investor base for multifamily product.

### Inbound capital contributed nearly \$7.3 billion of 2016 volumes

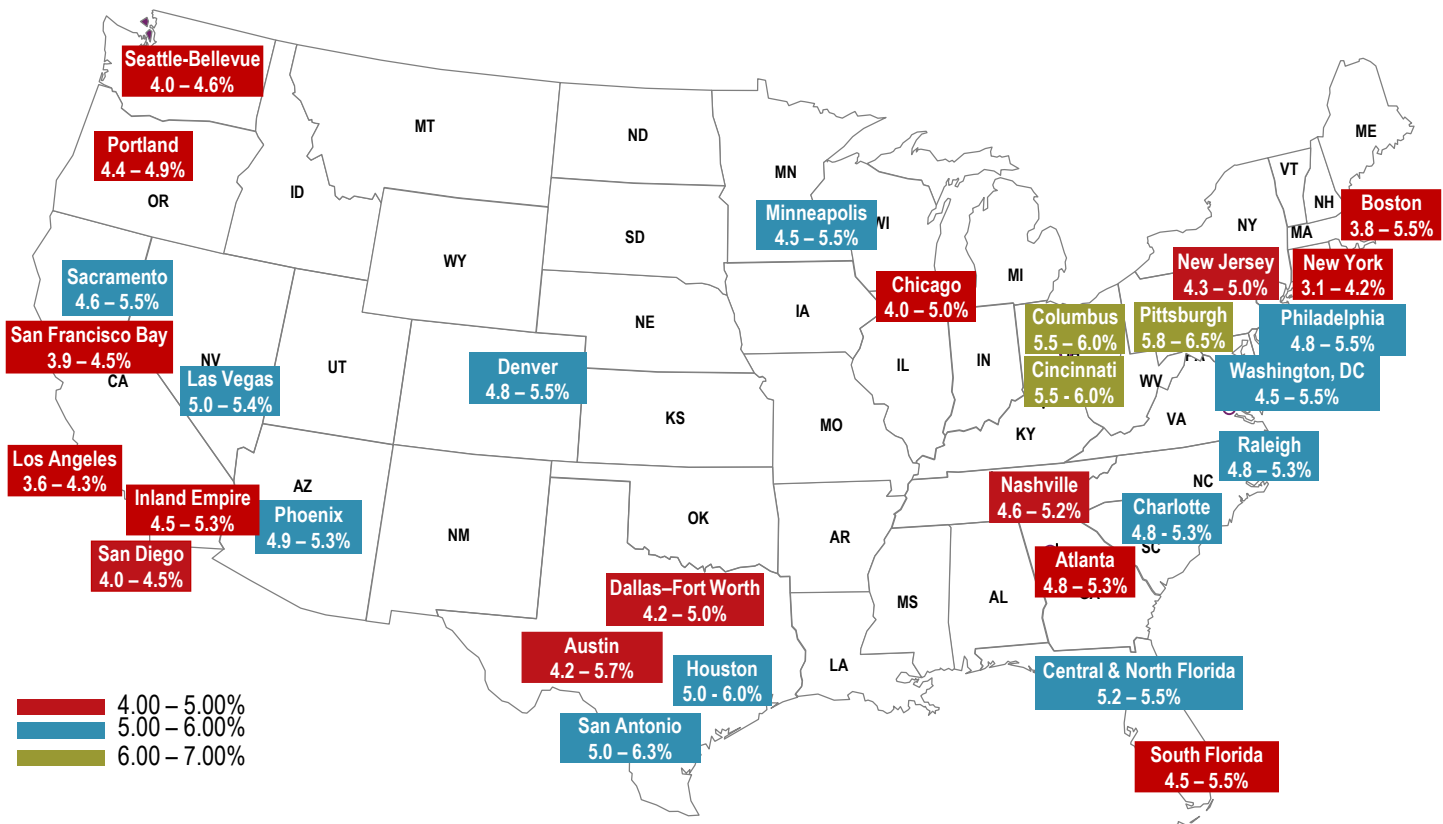
Offshore demand for multifamily product continues to steadily rise, with 2016 seeing the second highest year of inbound acquisitions in history



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## U.S. Class A multifamily cap rates



Source: JLL Research, January 2017

## Notable primary market single-asset transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (units)	Price (per unit)
New York	The Addison	Bentall Kennedy / MEPT	Waterton Associates	\$154,250,000	271	\$569,188
Los Angeles	Trio Apartments	Cherng Family Trust	TIAA-CREF	\$154,000,000	304	\$506,579
Seattle-Bellevue	Bridges at Northcreek	Griffis Residential	Grosvenor	\$145,000,000	524	\$276,718
New York	90-92 Queens Boulevard	Ding K Wai	Steven Wu	\$125,000,000	144	\$868,056
Washington, DC	Sutton	Dweck Properties Ltd	Crow Holdings / JLB Partners	\$104,000,000	420	\$247,619
Los Angeles	Noho Lofts	KBS Strategic Opportunity REIT II / M West Holdings	Rockwood Capital / Redwood Partners	\$102,500,000	292	\$351,027
New York	Red Square	Dermot Co / Rockwood Capital	Alpha-Beta Flats	\$100,000,000	130	\$769,231
Chicago	River North Park	Angelo Gordon	Waterton Associates	\$99,041,666	399	\$248,225
Los Angeles	Pierce Park Apartments	Desola Capital	Investment Property Group	\$98,000,000	430	\$227,907
Seattle-Bellevue	Carriages at Fairwood Downs	Sequoia Equities	TruAmerica Multifamily / Guardian Life Insurance / Allstate	\$97,750,000	400	\$244,375

## Notable secondary market single-asset transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (unit)	Price (per unit)
San Diego	BLVD 63	TIAA-CREF	Carmel Partners	\$156,000,000	332	\$469,880
Portland	LaSalle	Invesco RE / Holland Partners	Waterton Associates	\$141,750,000	554	\$255,866
Denver	Solana 3100 Pearl	Rockwood Capital	Reylenn Properties LLC / UBS	\$136,000,000	319	\$426,332
Denver	Pembroke on the Green	Heslin Holdings	Bridge Investment Group / Redhill Realty	\$129,000,000	959	\$134,515
Portland	The Yard	Land & House PLC	Key Development Corp / Sortis Capital	\$126,680,000	284	\$446,056
Portland	Eddylne Bridgeport	Sequoia Equities	Mill Creek Residential	\$118,100,000	367	\$321,798
Denver	Amli at Lowry Estates	Mesirow Financial	Morgan Stanley	\$112,250,000	414	\$271,135
West Palm Beach	Las Ventanas	Pollack Shores RE Group	Epoch Properties / PGIM Real Estate	\$109,330,000	494	\$221,316
Denver	Alexan Sloan's Lake	Castle Lanterra Equity	Trammell Crow Residential / BlackRock	\$102,800,000	369	\$278,591
San Diego	Sterling Alvarado	Heitman	Dinerstein Cos	\$98,100,000	320	\$306,563

A photograph of a modern retail store interior. The space features white walls and ceiling with recessed lighting. In the background, there are glass display cases filled with shoes. To the right, a white shelving unit with a wooden frame holds a pair of boots and some red fabric. A large purple rectangle is overlaid on the lower left portion of the image.

# Retail

# RETAIL

*2016 saw a decline in retail investment overall, with strategic shift to growing secondary markets*

U.S. Retail property market		U.S. Retail investment	
50	1.0%	\$64.3	-18.7%
12-month change in total vacancy (bps)	12-month net absorption (as a % of inventory)	Investment sales (FY, billions of \$US)	FY investment sale growth (%)
0.6%	2.8%	4.4%	-37
12-month completions (as a % of inventory)	12-month rent growth (p.s.f.)	Average cap rate (%)	12-month change in cap rate (bp)

**Retail volumes declined in 2016, with a noticeable drop in portfolio transactions.** Political and economic uncertainties led to slowed investment in 2016, decreasing by 18.7 percent from 2015, in line with other real estate sectors. Though volume is down, leasing fundamentals remain strong and a strong pipeline of transactions is expected to come to market in the first half of 2017.

**Shopping center liquidity in growing markets remained strong, despite the overall decline in volume.** While investors await Trophy product, they are looking to well-located shopping centers, where there is a wider selection of desirable assets supported by strong demographics. This theme has persisted over the past five years, and investors are likely to continue expanding their scope of viable shopping center markets.

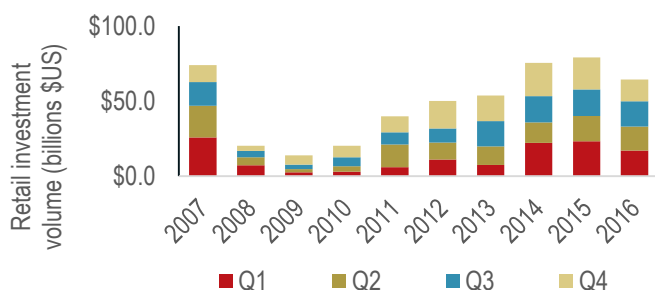
**Tier 2 malls remained stagnant in 2016; Trophy product moving quickly.** Tier 2 malls are proving difficult to transact due to declining sales and foot traffic, leading to a decline in overall mall volume by 11.0 percent year-over-year. Unlike previous years, only 37.5 percent of malls transacted as part of a portfolio this year, with buyers less comfortable with the associated risks and faced with unrealistic pricing expectations.

**Institutional and foreign REIT investment rose in 2016.** Led by strong acquisitions from investment managers, institutional investors increased activity by 2.2 percent in 2016. There additionally was an uptick in foreign REIT activity, as domestic REIT activity remained muted, a key factor being remaining uncertainty and public equity market performance

**Streamlining retail heightened focus on prime urban strategies.** Urban retail investment has increased at a steady pace since 2008, as retailers choose to strategically close tertiary market locations while increasing attention on urban stores surrounded by strong demographics. Secondary markets led urban investment in 2016, increasing by 43.5 percent and led by Oakland–East Bay, San Diego and Nashville.

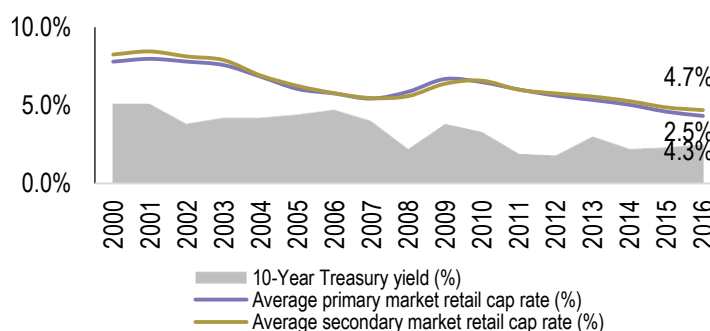
## Overall U.S. retail transaction volume by quarter

2016 retail volume on track with global trend, down by 18.7 percent from 2015



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## Retail cap rates compress in 2016, with primary market cap rates down by 37 basis points year-over-year



Source: JLL Research, NCREIF, Board of Governors of Federal Reserve System

# TOP 5 RETAIL THEMES

1

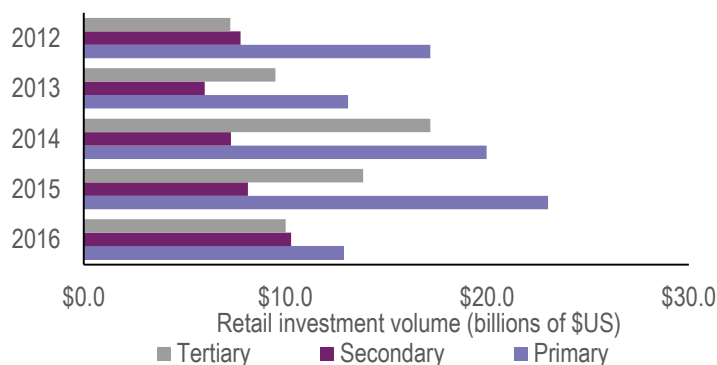
## Retail waned in 2016

Retail is proving the slowest real estate sector to recover from the 2008 market crisis, with 2016 representing a drop in investment volumes from its peak in 2015. As retail tends to err on the extreme side of global real estate trends, retail investment, like all property sectors, declined throughout the year, decreasing by 18.7 percent this year from last. Portfolio volume in particular has decreased by 33.7 percent from 2015, despite Brookfield Asset Management's \$2.8 billion acquisition of Rouse Properties closing in the third quarter. This decrease in transaction volume is attributed in part to global economic volatility, spurred by factors such as Brexit, the U.S. presidential election and interest rate hikes, most recently.

Despite the retail volume decline, U.S. retail occupancy fundamentals remain strong, with vacancy decreasing by an average of 26 basis points across major markets and demand exceeding supply over the last four quarters. Retail investment sales growth was seen in limited areas, in particular in secondary markets, which increased by 26.5 percent year-over-year, while primary market investment decreased by 43.9 percent year-over-year after having seen increased investment the year prior. Though retail transactions were less robust in 2016, 2017 is expected to see increased market activity, with growth concentrated in growing retail markets.

### Secondary market retail investment grows 26.5 percent in 2016

Primary market retail investment simultaneously declined by 43.9 percent across product types, due in part to the lack of Trophy opportunities



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M, shopping centers over 125,000 s.f., all urban)

2

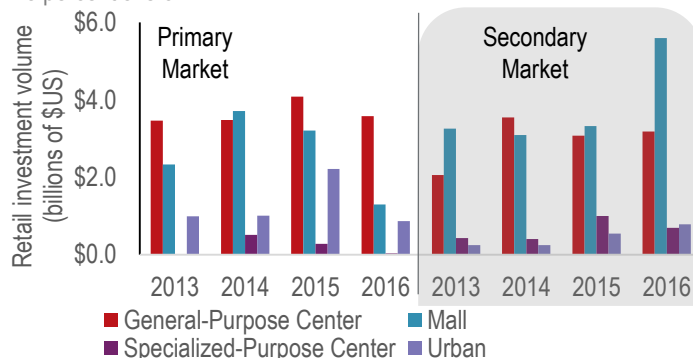
## Well-located shopping centers outperformed peer retail subtypes

Well-located shopping centers experienced sales gains and thus remained a staple investment to this year's retail investor, both domestic and international, as they await Trophy assets to come to market. Although general-purpose shopping center transaction volumes, including community centers and neighborhood centers, were down by 14.2 percent year-over-year, the shopping center has remained relatively consistent over the past five years, hovering at \$14.7 billion+ of annual activity since 2013. Like all other retail subsectors, shopping centers experienced declines in transaction volume, though a strong pipeline of deals is expected to come to market in the first half of 2017.

While asset risk is higher for retail generally, market risk is often lower. This is a function of strong, viable demographics and thus trade areas across a broader spectrum of market profiles—from primary to even tertiary, benefiting well-located assets. As a result, there are more opportunities geographically for lower risk, institutional sources of capital. As an example, Preferred Apartment Communities purchased Champions Village shopping center in Northwest Houston—one of eight grocery-anchored, portfolio assets located across Florida, Georgia, North Carolina and Texas—from Hines for \$158.0 million. Moving forward, we expect the scope of desirable shopping centers to continue to expand, specifically in growing secondary markets, provided there are strong demographics within the trade area.

### General-purpose shopping center investment remains stable

Investors hold specialized-purposed centers, leading to volume decline of 41.5 percent overall



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M, shopping centers over 125,000 s.f., all urban)

### 3

#### Tier 2 malls remain stagnant in part due to unrealistic seller price expectations

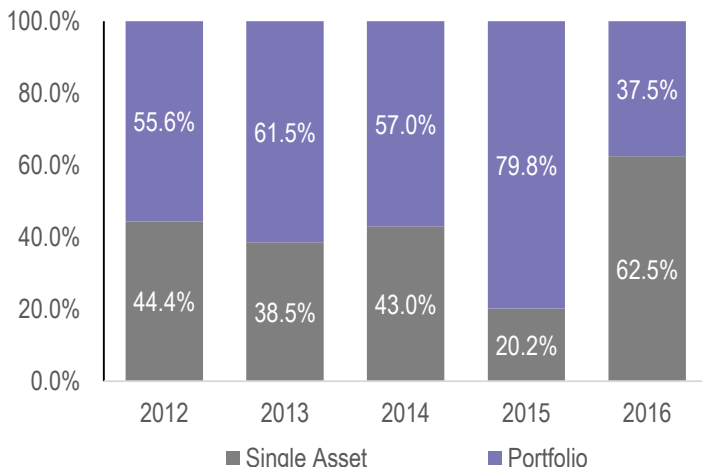
Between the mass closing of department stores and declining mall foot traffic, Tier 2 regional and super-regional malls have struggled to transact throughout the year. In 2016, the United States saw a decrease in overall mall volume by 11.0 percent, though the market continues to see well-performing Trophy and Tier 1 assets transact quickly when they come to market, such as the Miracle Mile Shops in Las Vegas. The asset was purchased this quarter in a co-investment venture by Miller Capital Advisory, Inc. and CalPERS from Tristar Capital and RFR Realty for \$1.1 billion—one of a series of over \$1.0 billion Trophy transactions to take place in Las Vegas this year.

Unlike the past five years in which malls tended to transact as part of a portfolio, 62.5 percent of malls were single-asset purchases in 2016, as opposed to 20.2 percent in 2015 and 43.0 in 2014. Unlike prior years, there are fewer active purchasers on the market with an appetite for mall assets. Further, the limited number of active investors are evaluating mall transactions closer for potential risks and thus are less likely to purchase as part of a packaged portfolio, where those risks may be greater than anticipated.

While it may be noted that many of the Tier 2 mall assets that came to market in 2016 are priced with particularly high cap rates, often sitting between 15.0 and 20.0 percent, it could be argued that these assets are underwritten fairly given the lack of retail appetite for this product type. For example, Lycoming Mall in Muncy, Pennsylvania, was purchased for \$26.4 million at an 18.0 percent cap rate by Kohan Commercial from PREIT in the first quarter, one of a series of PREIT dispositions throughout the year. Given the high vacancy rate of many Tier 2 malls coupled with the continuing growth of e-tail, current mall owners will likely be forced to lower pricing expectations in order to transact their assets at a healthy pace.

#### Challenged liquidity for Tier 2 malls limiting investment activity

Mall investment volumes decreased by 11.0 percent in 2016, driven by the decline in portfolios



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M, shopping centers over 125,000 s.f., all urban)

### 4

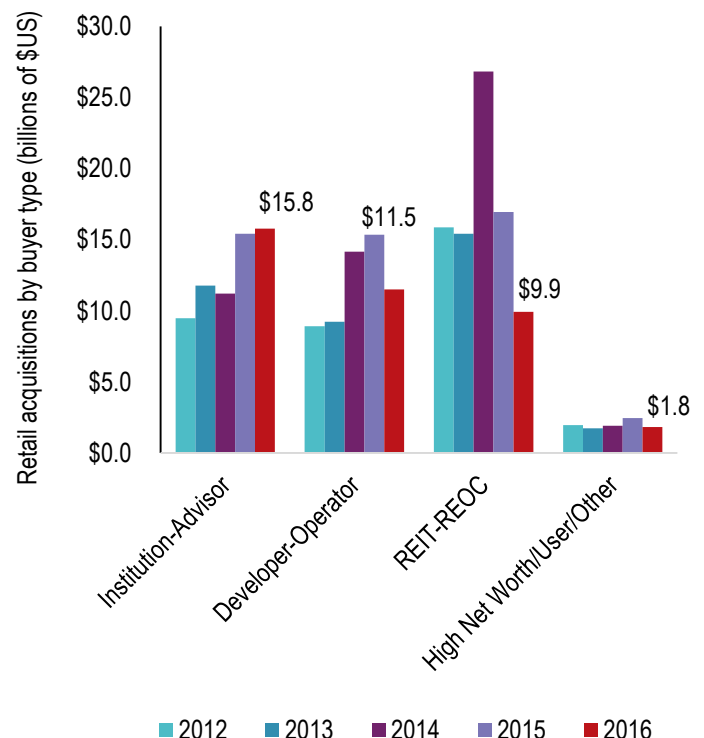
#### Institutional and foreign REIT investment rises in 2016

As retail transaction volumes declined across subtypes in 2016, the majority of investors have similarly slowed acquisition activity, with the exception of institutional investors. Institutional acquisitions grew by 2.2 percent in 2016, led by strong investment manager deal flow—up 77.9 percent—from groups such as Blackstone, TIAA, DRA Advisors and PGIM, each investing over \$1.0 billion in retail. Blackstone led with over \$3.0 billion of acquisitions.

REIT acquisitions have grown since 2009, peaking in 2014 with \$26.8 billion. 2016, however, saw the lowest REIT investment into retail since 2011. This decrease in volume comes from a lull in retail investment by domestic REITs, slowing transaction activity by 59.3 percent this year. Declines in public REIT investment is due partially to recent uncertainty and volatility in the public equity markets. GGP, for example, saw an 8.2 percent decline in stock prices from 2015, closing the market at \$24.98 at year-end. Further, the total return of retail REITs closed 2016 at 0.95 percent, significantly lower than the prior year. Foreign REITs, on the other hand, experienced an increase in retail activity this year, with transaction volumes exceeding \$2.9 billion, an increase of over \$2.5 billion from 2015. Canadian REIT, Slate Retail was active in 2016 with multiple smaller grocery-anchored shopping center acquisitions, including the \$11.0 million purchase of Robson Crossing in Oakwood, GA, from BB&T in the fourth quarter.

#### Institutional retail investment rising, up 2.2 percent in 2016

REIT investment decreased by 41.4 percent, dipping to cycle low



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M, shopping centers over 125,000 s.f., all urban)

## 5

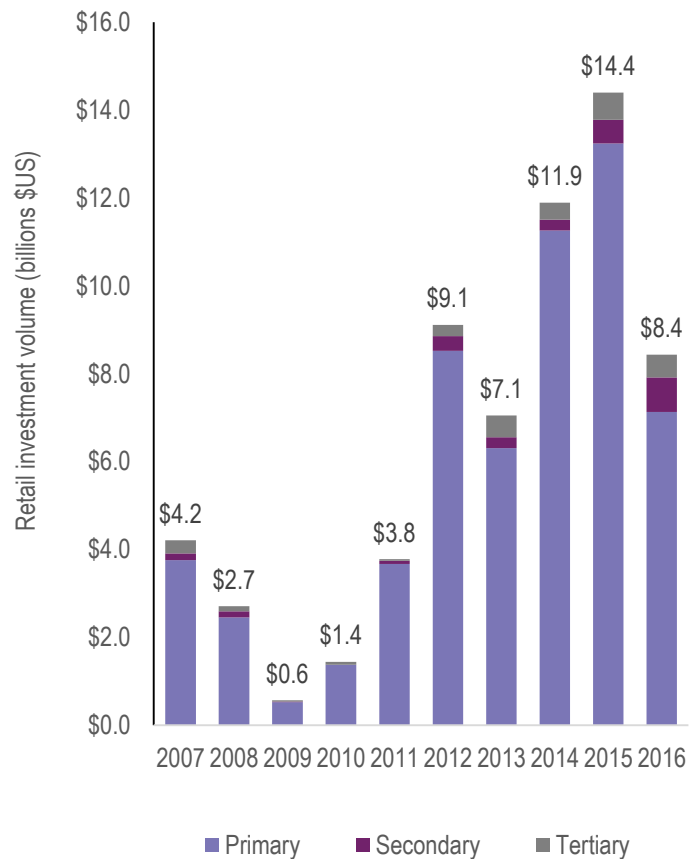
## Streamlining retail heightens focus on urban strategies

Long-reputable retailers are closing stores left and right. The continual Macy's and Sears closings are not news, but most recently The Limited filed for bankruptcy and BCBG announced strategic store closings. Both fashion retailers hold locations in both urban and mall environments. Lower than projected sales and the rapid growth of ecommerce has retailers reevaluating their brick-and-mortar strategies. Because of this, many retailers are choosing to shutter underperforming store locations, generally located in tertiary malls, and go full-force in urban locations, where the demographics support the investment. As a result of this focus, urban retail investment volume has grown at a steady pace over the last eight years, though experiencing a decline in retail volume this year by 41.4 percent. Despite investment in primary markets being down by 46.1 percent in 2016, secondary urban retail increased by 43.5 percent, with Oakland–East Bay, San Diego and Nashville leading volumes.

Established primary market, Trophy urban assets are continuously sought after by institutional and foreign investors. However, these locations lacked those prestigious retail opportunities in 2016. These prime urban markets furthermore experienced a 2.4 percent decrease in international tourism. In particular, South Korean arrivals to the United States declined by 25.6 percent and arrivals from Hong Kong declined by 8.0 percent year-over-year, affecting tourism and thus visitor spending, primarily in gateway markets such as Miami and Los Angeles. New York was the outlier, seeing record international tourism in 2016. As a result, the same pool of investors are shifting attention from primary markets toward growing secondary market cities with young populations and healthy economies while waiting for those primary market offerings to improve.

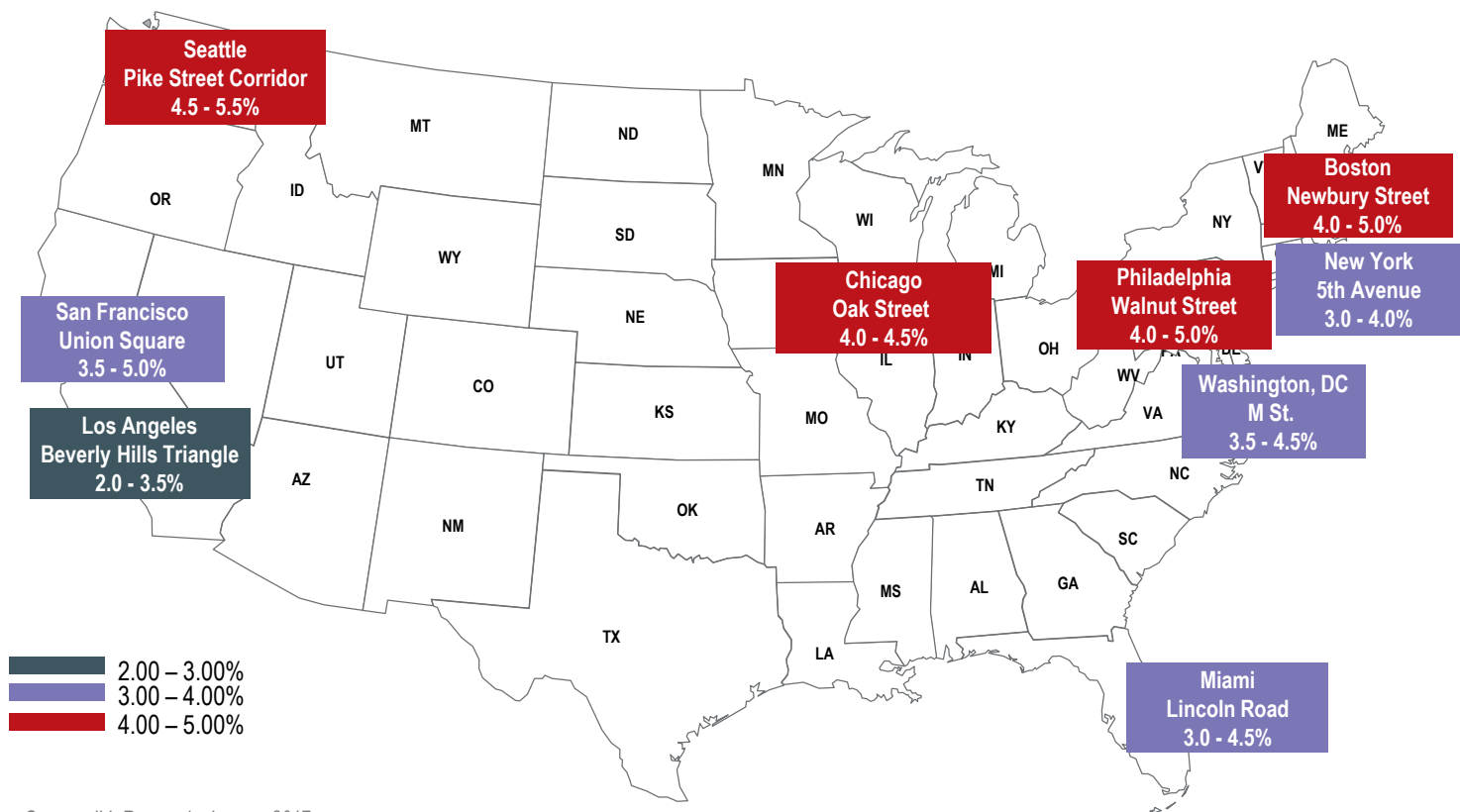
## As retailers streamline strategies, urban investment increases

Secondary market urban investment grew by 43.5 percent in 2016, as primary markets saw a 46.1 percent annual decline



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M, shopping centers over 125,000 s.f., all urban)

U.S. prime urban retail cap rates



Source: JLL Research, January 2017

### Notable primary market transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
Washington, DC	Cabin John Mall & Shopping Center	EDENS	Carl M Freeman Cos.	\$165,000,000	214,204	\$770
San Francisco	555 Ninth Street	Acadia Realty	SPI Holdings	\$140,600,000	149,000	\$945
New York	Dolce & Gabbana	ASB Capital	Thor Equities	\$93,000,000	14,600	\$6,370
Chicago	Danada Square East	LaSalle Investment Management	Newport Capital Partners	\$63,250,000	199,080	\$318
New York	Hamilton Plaza	Joyland Management / Meral Property Group	Goodrich Management LLC / Michael Rosenberg	\$35,110,000	125,000	\$281
Los Angeles	315-319 North Beverly Drive	Sterling Organization	Ralph & Kristi Jackson Trust / Kohr-Tallman Living Trust / Kathryn Jameson	\$23,500,000	4,700	\$5,000
Chicago	Oak Mill Plaza	Phillips Edison Grocery Center REIT I Inc.	Major Realty	\$22,225,000	163,286	\$136
Los Angeles	469 North Canon Drive	Grand Canon Development LLC	Bendheim Enterprises	\$17,000,000	9,759	\$1,742
Chicago	Arlington Town Square	Hutensky Capital Partners	LNR Property Corp.	\$15,800,000	136,800	\$115
Chicago	Shops at State Place	IRC Retail Centers	AEW Capital / Nevada PERS	\$15,000,000	61,639	\$243

### Notable secondary market transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
Las Vegas	Miracle Mile Shops	Miller Capital Advisory / CalPERS	RFR Realty / Tristar Capital	\$1,100,000,000	501,522	\$2,173
Orlando	Plaza Venezia (Publix)	Regency Centers / Confidential	TH Real Estate	\$92,500,000	201,808	\$460
Las Vegas	Bonanza Gift Shop	Haim Gabay & Rachel Gabay RT	Eastern Real Estate LLC	\$50,000,000	40,000	\$1,250
Milwaukee	Brookfield Fashion Center	HSA Commercial Real Estate / Innovative Capital Advisors	CSM Corp.	\$43,000,000	217,346	\$198
Sacramento	Southgate Plaza	NewMark Merrill Companies	Ares Management	\$42,100,000	339,369	\$124
Northern New Jersey	Plainsboro Plaza	PCCP	Onyx Equities LLC / Artemis RE Partners	\$42,000,000	218,653	\$192
Charlotte	Grande Promenade	Ferris Development	Zapolski Real Estate / US Advisor LLC	\$40,100,000	202,555	\$198
San Diego	Felicita Town Center	Brixmor	Gerrity Group	\$40,100,000	126,502	\$284
Phoenix	Southern Palms Shopping Center	PE Grocery Center REIT I Inc.	West Valley Properties Inc.	\$36,750,000	257,979	\$142
Nashville	The Crossings of Spring Hill	Hardam Azad	Blackstone	\$24,845,000	219,905	\$113

### Notable portfolio transactions, Q4 2016

Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)	Price (p.s.f.)
National	U.S. Alecta Multisector Portfolio	Blackstone	Alecta	\$789,000,000 (retail)	1,074,362	\$734
West Coast	Merlone Geier Retail Portfolio	CBRE Global Investors	Merlone Geier	\$450,000,000	7,000,000	\$142
New York	DDR New York Retail Portfolio	DLC Management / DRA Advisors	DDR Corp.	\$390,000,000	4,850,000	\$80



# Lodging

# LODGING

*U.S. hotel transactions represented nearly 50 percent of all sales globally in 2016 despite the softening of lodging market fundamentals, looming supply and political uncertainty*

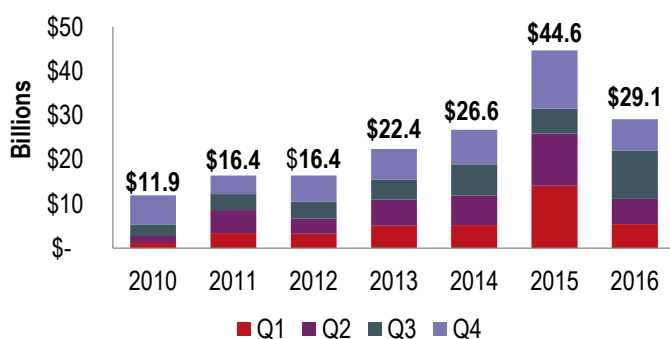
U.S. Lodging property market		U.S. Lodging investment	
0.1%	3.2%	\$29.1	-34.8%
Year-to-date occupancy growth	Year-to-date RevPAR growth	Investment sales (FY, billions of \$US)	FY investment sales growth (%)
1.6%	3.1%	7.6%	50
Year-to-date supply growth	Year-to-date ADR growth	Average actual going-in cap rate (%)	12-month change in cap rate (bps)

- **U.S. hotels posted RevPAR growth of 3.2 percent in 2016**, representing half of the growth the market observed in 2015. Growth varied notably among the top-25 U.S. markets, with five markets experiencing a decline. That said, the most recent trends are suggesting a potential RevPAR bounce, with investors' expectations for 2017 more positive than three months ago.
- **Supply growth has steadily increased** and grew 1.6 percent in 2016. The supply outlook for each of the top-25 markets differs significantly, with New York, Seattle and Denver leading the list. The number of hotel rooms under construction as a percent of existing room supply ranges from 10.3 percent to 13.3 percent in the aforementioned markets.
- **The United States accounted for nearly 50 percent of transaction volume globally.** Despite this heavy weighting toward investment in the United States, U.S. hotel transactions volume decreased 34.8 percent in 2016 relative to the prior year's extraordinary levels.
- **2017 is anticipated to be the year of increased clout of the domestic buyer.** In 2016, the Dow Jones U.S. Hotel & Lodging REIT Index rallied 44 percent, an impressive increase that paves the way for more acquisitions by REITs. Private equity funds are also expected to become more active players in the U.S. lodging market throughout 2017. Having

raised a significant amount of new capital last year, many of these investors plan to get back in the game after not being active buyers in 2016.

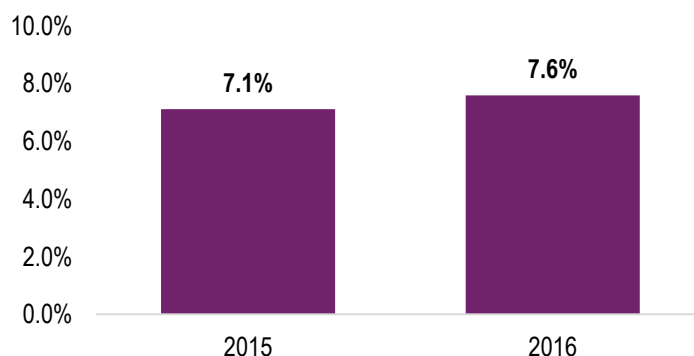
- **More M&A activity is anticipated in the hotel industry at the brand and operator level.** In 2016, the lodging industry, similar to other major industries, observed an increased level of consolidation, driven by ambitious growth goals, cost efficiencies and individual firm strategies. Notable transactions included Marriott International's purchase of Starwood Hotels & Resorts Worldwide, Anbang Insurance Group's acquisition of Strategic Hotels & Resorts and HNA Tourism Group Co. Ltd's purchase of Carlson Hotels. This trend is expected to continue in 2017, with a recent example being Hyatt Hotels Corporation's acquisition of the Miraval Group.
- **Cap rates increased approximately 50 basis points in 2016.** Market transactions over the year remained solid, notwithstanding investors pricing in additional risk, which resulted in hotels trading at cap rates 50 bps higher relative to the 2015 cyclical lows.

U.S. hotel transactions volume



Source: JLL Research

U.S. hotel transaction volume



Source: JLL

Note: Pertains to U.S. single-asset hotel transactions, logged based on closing date. Excludes portfolio sales. Excludes transactions under \$10M or those with a price per room of under \$75K. Analysis pertains to approximately 500 transactions for which cap rate data is known.

# TOP 5 LODGING THEMES

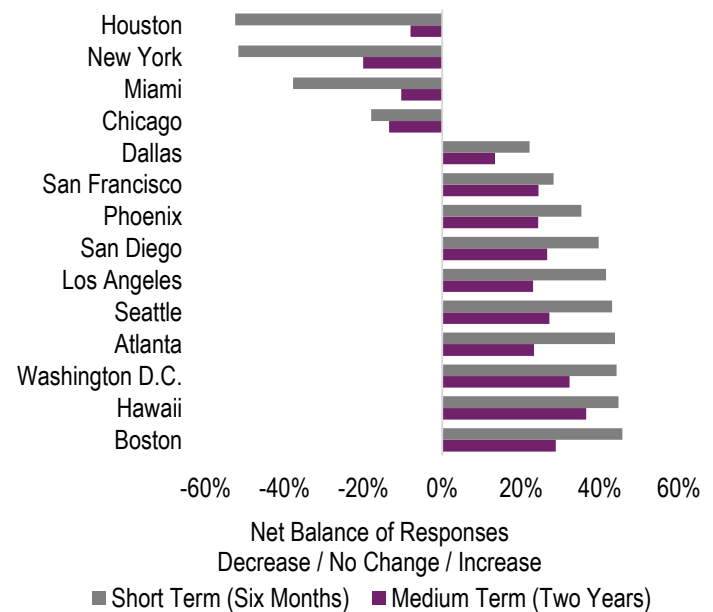
1

Hotel occupancy reaches a new record of 65.5 percent

Hotel occupancy rate in the United States in 2016 reached a new record of 65.5 percent, despite increases in supply and the impact of home sharing and alternative accommodations, suggesting how robust the market remains. In 2017, the additions to supply are projected to place downward pressure on occupancy and, as such, the entirety of RevPAR growth will be driven by ADR growth near the 3.0 percent mark. Growth in corporate transient demand, which was relatively stagnant in 2016, is expected to see an uptick in 2017 given improving corporate profits and economic benefits expected from fiscal stimulus and less regulation on Capitol Hill following President Trump's inauguration. As a result, RevPAR growth in 2017 is expected to be consistent with 2016 growth and range from 2.0 to 3.0 percent.

On a more granular level, market participants have a positive bias toward Boston, Washington, D.C. Atlanta, Nashville and smaller markets on the West Coast. The aforementioned markets have demonstrated above-average growth or exhibited insulation from cyclical downswings and are expected to experience strong economic fundamentals in 2017.

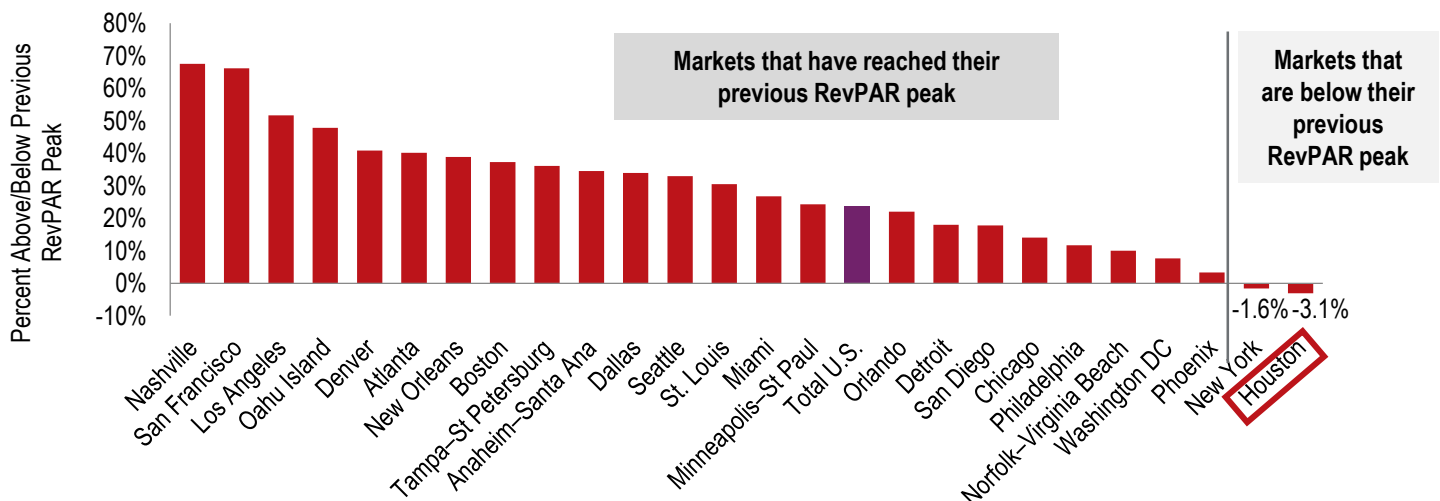
## U.S. Investors' Hotel Operating Performance Expectations



Source: JLL

Note: net balance represents the proportion of respondents who expect hotel operating performance to increase, minus the proportion of respondents who expect performance to decrease during the given time frames

## RevPAR performance since previous peak



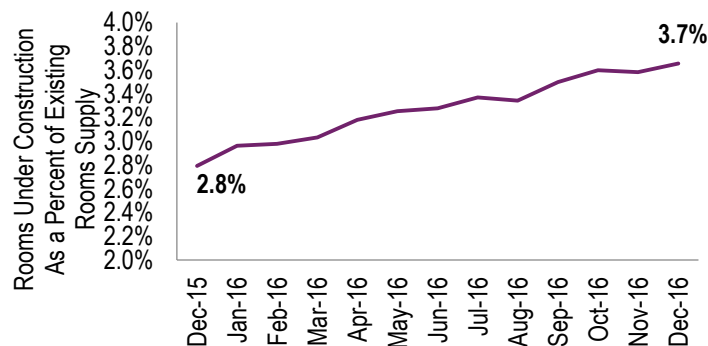
Source: STR, JLL

Note: current cycle data pertains to full-year 2016 figures

## 2

Additions to supply continued to grow in 2016; 2017 is anticipated to follow a similar trend

### U.S. Hotel Rooms Under Construction



Source: STR, JLL

The number of hotel rooms under construction as a percent of existing supply increased to 3.7 percent in 2016 from 2.8 percent a year ago.

Overall supply in the United States increased by 1.6 percent in 2016, under the long-term national average. For 2017, given the current level of hotel rooms under construction, we anticipate additions to supply to grow on par with 2016 and for supply to observe up to a 2.0 percent increase.

Over 70.0 percent of the hotel rooms under construction are select-service hotels. New York continues to lead the nation in number of hotel rooms under construction, with hotel rooms under construction representing 13.3 percent of the existing rooms supply. Pending new supply in 2016 accelerated in other markets as well, namely Denver and Seattle. Seattle hotel rooms under construction increased from 5.3 percent of rooms supply a year ago to 12.0 percent currently, partly due to the 1,260-key Hyatt Regency Seattle breaking ground. There appears to be a perception that Miami may become oversupplied, but the reality is that Miami is sixth on the list of hotels under construction as a percentage of current inventory at 6.6 percent.

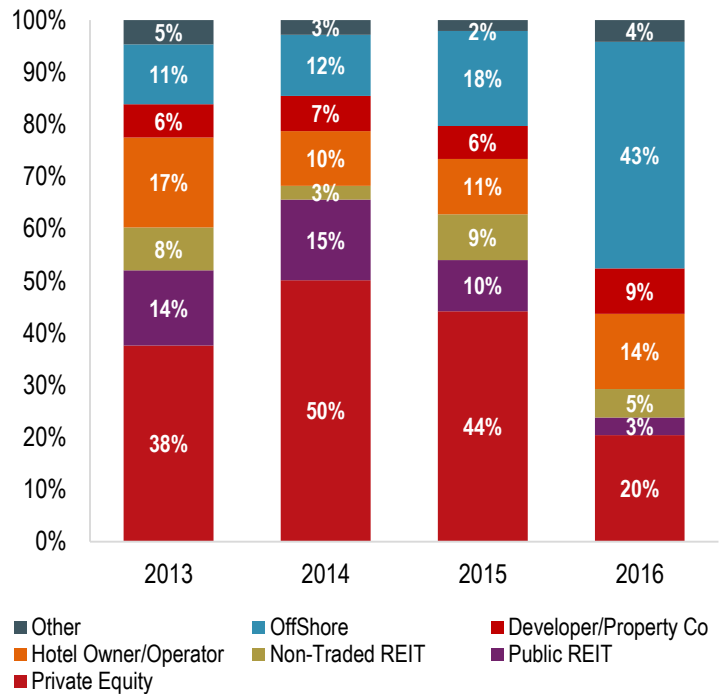
## 3

2017 transaction volumes are expected to remain on par with the prior year's more normalized levels

Transaction activity in 2016 totaled \$29.1 billion, representing a 34.8 percent decrease relative to the prior year's extraordinary level but above the level posted in 2014. Of the \$29.1 billion in transactions:

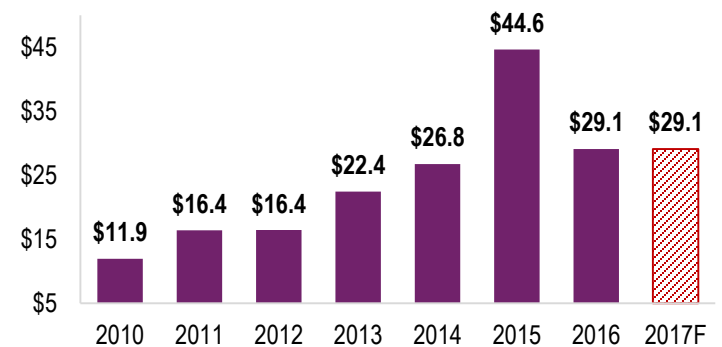
- 70.0 percent were driven by the sale of full-service hotel assets.
- 60.0 percent or \$17.3 billion represented single assets, while the remaining 40.0 percent was composed of portfolio sales.
- Purchases by offshore groups accounted for 43.0 percent of total transactions. In 2017, this proportion of international liquidity is anticipated to decrease as domestic buyers become more active. Inbound capital is likely to originate from China—albeit at a more subdued level than 2016 given governmental restrictions—the Middle East and Europe. Europe is expected to increase its outbound capital flows as its institutional investors target high-profile assets. Having deployed just over \$1.0 billion in hotel transactions in 2016, Europe is expected to ramp up its outbound capital, and U.S. hotel assets will continue to be a focus for European investors.

### U.S. hotel buyer composition



Source: JLL Research

### U.S. hotel transaction volume

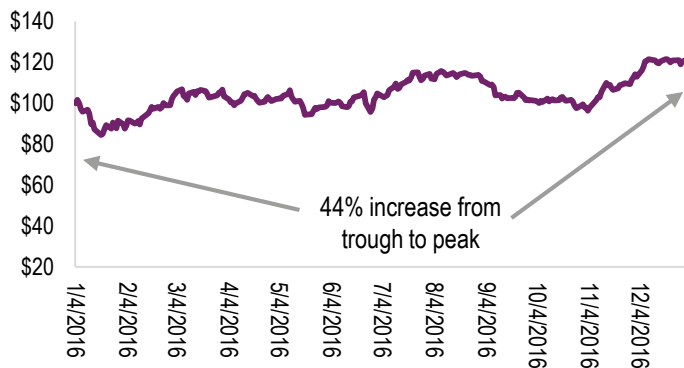


Source: JLL

Our expectation for total U.S. hotel real estate transactions in 2017 is approximately \$29.0 billion, mirroring the level recorded in 2016 (which is a significant increase in activity if Anbang's acquisition of Strategic Hotels & Resorts is excluded from 2016). This volume is supported by:

- Greater activity from public REITs, who acquired \$4.0 billion worth of hotels per year from 2011 to 2015. The buyer group's contribution should be above the anemic levels observed in 2016 as share prices continue to rise.
- Private equity funds reaching the end of their hold period will sell assets out of legacy funds.
- PE funds have also raised significant capital (tens of billions) and will be seeking to deploy that capital.
- Debt capital markets being open, a market force less prevalent during the first quarter of 2016.

## Dow Jones U.S. hotel lodging index share price —2016



Source: WSJ, JLL

## 4

### More mergers and acquisitions on deck

30%

Share of branded full-service hotel rooms involved in brand M&A since 2014

*Note: Pertains to hotels positioned in the full-service and luxury categories of companies acquired globally; for part stake purchases, room counts were netted down to proportion that transacted.*

Source: JLL

Hotel companies made headlines in 2016 announcing purchases of other parent companies, such as Marriott International's acquisition of Starwood Hotels & Resorts and HNA Tourism Group Co. Ltd's purchase of Carlson Hotels. **The full-service brands that changed ownership at the parent company level represent approximately 30 percent of all full-service branded rooms globally.** This shows just how prevalent ownership changes have been, and little slowdown is in sight, particularly at the brand and operator level. In January 2017, Hyatt Hotels Corporation announced the acquisition of wellness resorts and spas, the Miraval Group.

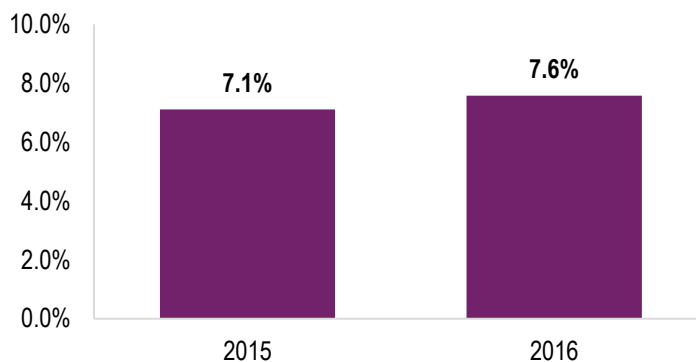
## 5

### Cap rates mark moderate increases

According to JLL's proprietary U.S. hotel transactions database, cap rates have followed an upward trend over the past two years and are expected to continue seeing moderate upward pressure in 2017. These market factors could motivate current hotel owners to sell their assets as they look to secure a more desirable cap rate than what is projected for later in the year.

Current cap rate levels reflect various dynamics in the market such as an overall less liquid transactions environment, further increases to the federal funds rate over the next year and more sluggish growth in hotel profits. **Cap rates in 2017 are expected to increase an additional 25 to 30 basis points**, as we believe the market has already factored in expected interest rate increases on going-in yields.

### Actual going-in cap rate 2015 – 2016



Source: JLL

*Note: Pertains to U.S. single-asset hotel transactions, logged based on closing date. Excludes portfolio sales. Excludes transactions under \$10M or those with a price per room of under \$75K. Analysis pertains to approximately 500 transactions for which cap rate data is known.*

## Notable hotel transactions, Q4 2016

Transaction	Buyer	Market	Price (\$)	Size (keys)	Price (\$ per key)
RLJ New York Hotel Portfolio	HX Decker Capital Management LLC	New York	\$286,000,000	578	\$495,000
Ritz-Carlton San Francisco	WP Carey & Co., Inc.	San Francisco	\$280,000,000	336	\$833,000
Affinia Hotel New York	Highgate Holdings	New York	\$217,500,000	610	\$357,000
Courtyard New York World Trade Center	Union Investment Real Estate GmbH	New York	\$206,000,000	317	\$650,000
Sheraton Hotel Fisherman's Wharf	ACRON AG	San Francisco	\$200,000,000	529	\$378,000
Outrigger Reef Waikiki Beach Resort	KSL Capital Partners, LLC	Honolulu - Oahu	\$184,948,111	635	\$291,000
Ritz-Carlton Kapalua	Ares Management, LLC	Lahaina - Maui	\$173,000,000	463	\$374,000
Hyatt Regency Pier 66	Tavistock Group	Fort Lauderdale	\$163,300,000	384	\$425,000
StepStone New York Hotel Portfolio	StepStone Hospitality	New York	\$129,900,000	305	\$426,000
OHANA Waikiki East	KSL Capital Partners, LLC	Honolulu - Oahu	\$128,797,980	441	\$292,000
Four Seasons Resort Vail	Extell Development Company	Vail	\$121,000,000	133	\$910,000
Xenia Hotels Portfolio	Magna Hospitality Group	National	\$119,000,000	683	\$174,000
Rockbridge Two-Property Portfolio	Starwood Capital Group	Southeast	\$116,000,000	527	\$220,000
Conrad Fort Lauderdale	Heafey Group	Fort Lauderdale	\$100,000,000	298	\$336,000

*\*Note: for part stake sales; price per key represents full implied value  
Source: JLL Research*

A photograph of a modern office building interior. The space is a large, open atrium with a high ceiling. On the left, there's a glass wall reflecting the outside. In the center, a large green wall is covered in various plants. Below the green wall, there's a mezzanine level with a glass railing. The floor is made of large, light-colored tiles. In the background, there's a glass door leading outside. A few people are walking in the distance. A large orange square is overlaid on the left side of the image, containing the text "Net Lease" in white.

# Net Lease

# NET LEASE

*Net lease office sales reach historic high after 11 mega deals transact in 2016*

U.S. Net Lease investment		U.S. Office Net Lease investment	
<b>\$45.6</b>	<b>6.1%</b>	<b>\$22.0</b>	<b>6.5%</b>
Investment sales (FY, billions of \$US)	Average cap rate (%)	Investment sales (FY, billions of \$US)	Average cap rate (%)
U.S. Industrial Net Lease investment		U.S. Retail Net Lease investment	
<b>\$13.4</b>	<b>6.6%</b>	<b>\$10.2</b>	<b>5.7%</b>
Investment sales (FY, billions of \$US)	Average cap rate (%)	Investment sales (FY, billions of \$US)	Average cap rate (%)

**Net lease sector gains broader favorability in the latter stages of the cycle.** Investor selectivity is seen throughout 2016, with the profile of preferred assets stratifying more market and leasehold profiles. Eleven mega deals drove net lease office sales to reach historic highs, as a slowdown in industrial and retail activity drove overall net lease volumes down 18.6 percent in 2016.

**Selectivity of asset profiles drives deeper capital flows in net lease sector.** Institutional investors continue to favor premier net lease product, while traditional net lease investors gain a new preference for higher risk assets with less creditworthiness and lease term length. A deeper focus on asset and leasehold characteristics is enabling these groups to mitigate risks at more accretive yields.

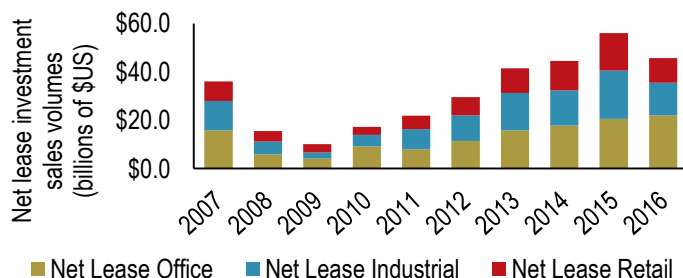
**Corporate tenant ownership strategies diverge with sale leasebacks and buybacks.** Corporations similarly remained selective in 2016. Select corporate owners favored sale leasebacks as a means of monetizing real

estate holdings in an accretive pricing environment, while others chose to buy substantial leased assets as a long-term occupancy and investment strategy.

**Net lease cap rates soften modestly in the fourth quarter, influenced by macroeconomic factors and the varying appetites of buyers and sellers.** Cap rates trended with mild volatility through the year, with cap rates softening by 25 basis points on average across sectors in the last quarter. With this, a number of transactions were slightly delayed in the latter part of the year and in early January as buyers contemplated re-pricing for on-market transactions in response to increases in their cost of capital.

## Net lease volumes normalize relative to a three-year average

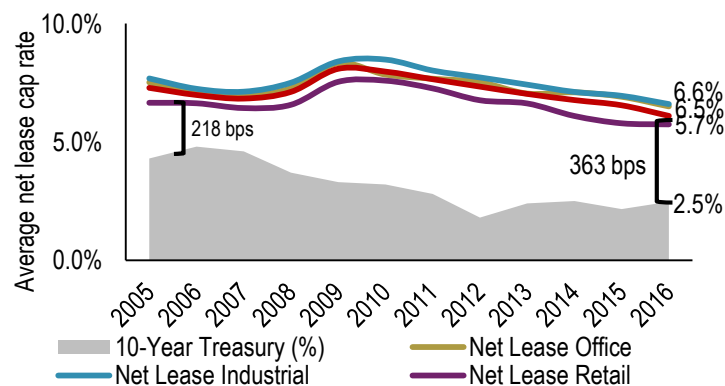
Office sales increase to a record high in 2016, driven by 11 mega deals each over \$250.0 million



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## Net lease spreads to Treasury remain healthy

Despite rising rates, overall net lease spreads to the 10-Year Treasury remains 145 basis points higher than prior peak



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M), Board of Governors of Federal Reserve

# TOP 4 NET LEASE THEMES

1

## Net lease sector gains broader favorability throughout 2016

Investor interest in the net lease sector continued to rise and diversify further through 2016, with selectivity of asset profiles driving investors to migrate deeper into the sector. A year-over-year sales decline of 18.6 percent is not indicative of declining interest, but rather the result of on-market opportunities which have not met the evolving investor demand. This was evident in increased acquisitions of higher-quality, higher-priced assets. Several institutional buyers—including banks, private equity funds and insurance companies—increased net lease acquisitions in relation to overall commercial real estate acquisitions by an average of 115.1 percent.

The preference for premier product was supported by 11 office transactions each over \$250.0 million, bringing net lease office sales to record volumes in 2016. The year also saw a total of 51 headquarters transact for an aggregate sum of \$5.7 billion, the largest of which was the C \$1.9 billion. Alongside Citigroup, other noteworthy headquarter

transactions included State Farm Operational Center, National Cancer Institute, Facebook and select Amazon assets. Due to the asset quality and primary market locations, many of these assets traded at sub-5.0 percent cap rates.

As the investor pool continues to diversify and the profile of preferential assets evolves through 2017, investor demand will likely remain consistent. Investment volumes are expected to remain stable with the potential for modest gains as new sale leaseback and portfolio discussions are increasing in the early days of this year.

2

## Selectivity of asset profiles drives capital flows deeper in net lease sector

As macroeconomic volatility through 2016 pushed deal flow and pricing to vary quarter-to-quarter, year-end capital flows were representative of evolving selectivity. Institutional investors maintained a focus on premier product, driving pricing for primary office net lease transactions with investment-grade tenants in long-term leases to compress by over 100 basis points year-over-year.

This increased selectivity, however, is not limited to institutional-quality assets. Traditional net lease investors—including private buyers, traded and non-traded REITs and high-net-worth individuals—have expanded investment criteria to find better yields in the competitive pricing environment, while focusing on asset- and leasehold-level characteristics as a means of mitigating risks. As an example, these buyers have acquired assets with non-creditworthy tenants, where lease term and location criticality enhance the security of the investment. Likewise, these buyers are also seeing value in assets with shorter term leases where renewal probability is more certain due to the critical locational nature of operations or the tenant's investment in the property. These varying strategies have increased competition in previously less-favored asset profiles, supporting cap rate compression for assets with shorter term leases or non-creditworthy tenants in both office and industrial assets.

Looking into 2017, capital flows will likely increase deeper into markets and net lease subsectors, with disposition strategies responding to evolving investor demand. As a result, the profile of assets coming onto the market is expected to remain diverse given current real estate capital markets and pricing dynamics. This has already been witnessed with REIT disposition strategies throughout 2016.

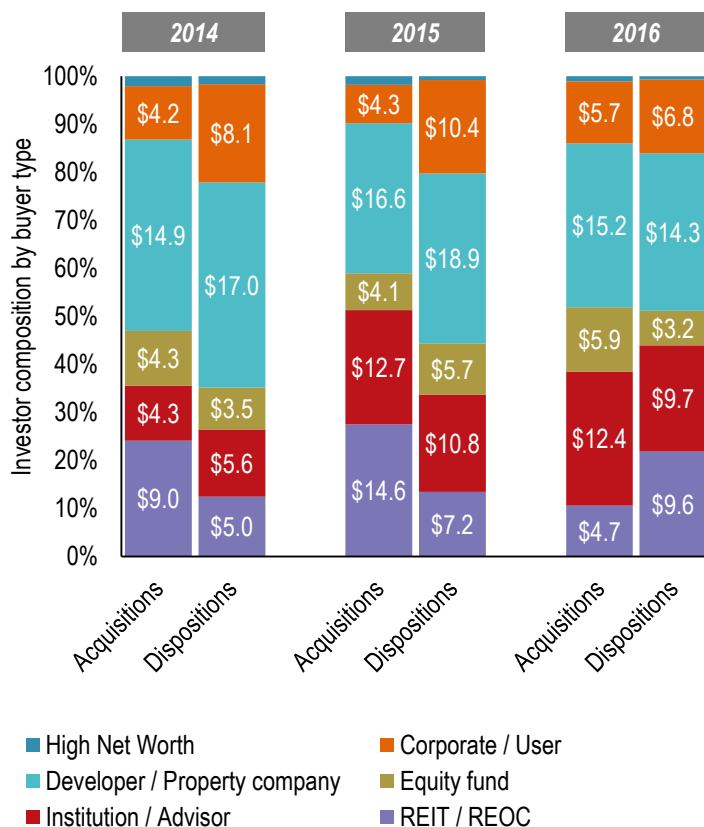
### Net Lease Sector Activity (FY 2016)

	OFFICE	INDUSTRIAL	RETAIL
Overall volumes	<b>\$22.0 billion</b>	<b>\$13.4 billion</b>	<b>\$10.2 billion</b>
Year-over-year change	<b>7.4%</b>	<b>-32.7%</b>	<b>-34.6%</b>
Average cap rate	<b>6.5%</b>	<b>6.6%</b>	<b>5.7%</b>
Year-over-year change	<b>-24 bp</b>	<b>0 bps</b>	<b>-12 bps</b>
Sale leaseback volumes	<b>\$4.5 billion</b>	<b>\$2.5 billion</b>	<b>\$1.6 billion</b>
Year-over-year change	<b>0.1%</b>	<b>-8.8%</b>	<b>-50.8%</b>
Foreign investment	<b>\$4.1 billion</b>	<b>\$1.4 billion</b>	<b>\$465 million</b>
Year-over-year change	<b>46.2%</b>	<b>-73.1%</b>	<b>-68.8%</b>

Source: JLL Research, Real Capital Analytics (transactions larger than \$5.0M)

## Investor selectivity drives the buyer pool to evolve through 2016

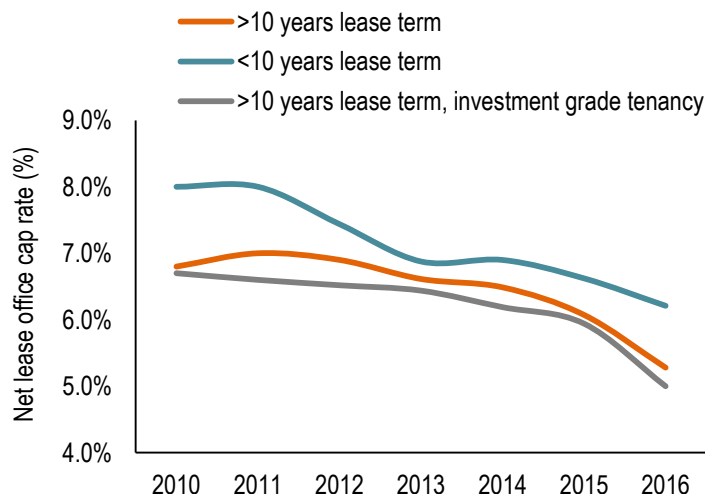
Divergent strategies emerge for REITs, developers and corporate users, in particular



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## Premier office assets see sharp cap rate compression

Primary market, net leased office assets with credit tenancies drive increased compression of cap rates in 2016



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## 3

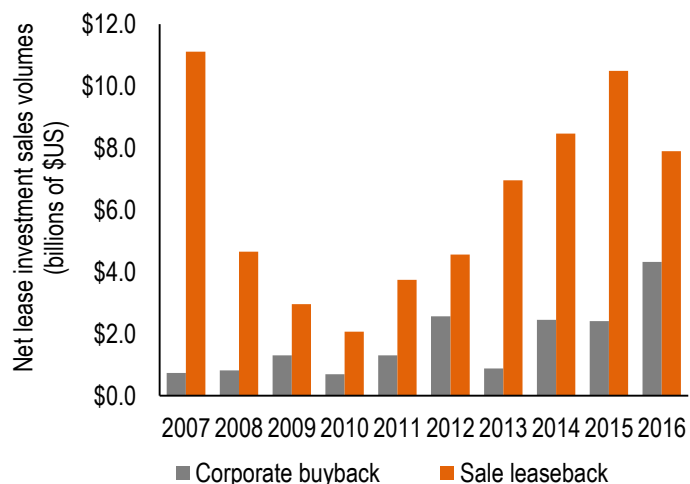
## Corporate tenant ownership strategies diverge with sale leasebacks and buybacks

Corporations similarly remained selective in 2016, as global economic uncertainty and new governmental policies led some corporations to reserve immediate thoughts on monetizing assets. The office sector led sale leaseback activity with nearly half of all volumes, including noteworthy assets sold by State Farm and Verizon Wireless. The industrial sector remained on par with the previous year. Leading transactions included the Forterra industrial portfolio selling for \$217.0 million and the Vons industrial portfolio selling for \$240.0 million. Retail sale leasebacks suffered through the year, with Bijan's sale of its Beverly Hills asset leading the list of top retail transactions at \$122.0 million. Walgreens, CVS, Macy's and Mills Fleet Farm were a few additional retailers that took advantage of an accretive pricing environment and monetized owned portfolios.

In what could perhaps be considered an outlier year, corporate buyback activity reached a record-high level at \$4.3 billion, driving an inversion in what is typically a sale leaseback, corporate disposition environment. Corporate users buying the space they occupy is a compartmentalized trend seen mostly with technology and banking tenants—including Google, Facebook and Citigroup—acquiring leased office assets and high-end retailers—including Chanel, Hermes and Prada—purchasing flagship locations. This trend is not expected to stay at record levels. However, well-capitalized tenants in primary markets are likely to continue to consider owning over leasing as a long-term occupancy and investment strategy. Otherwise, sale leaseback activity has seemingly normalized and is expected to remain flat or slightly increase in 2017. Potential increases will largely rely on the macroeconomic environment, interest rates and corporations' financial performance and goals.

## Sale leasebacks taper after peak year of portfolio activity in 2016

Technology and banking office tenants and high-end retailers drive corporate buybacks to record levels



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M)

## 4

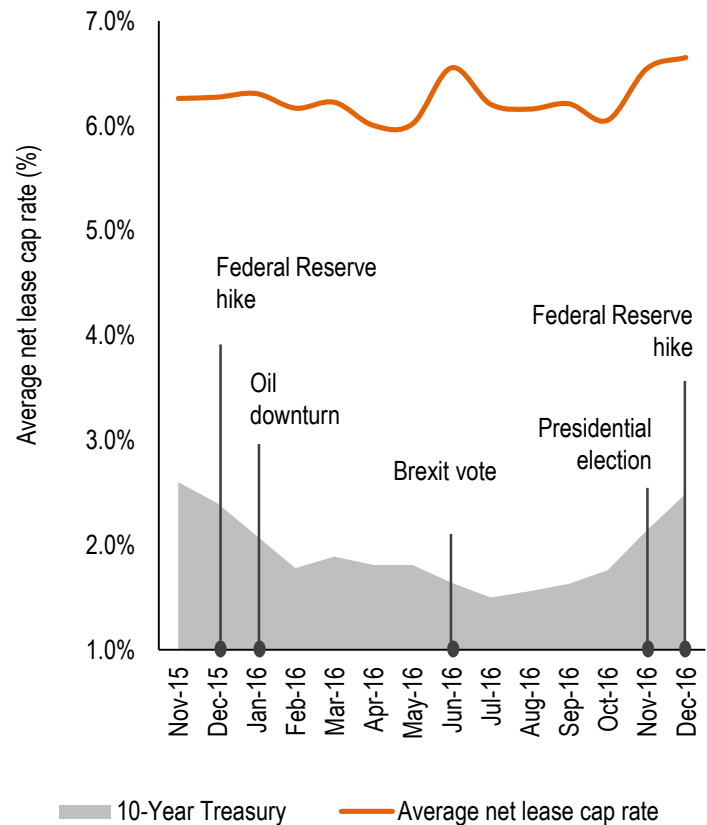
## Net lease cap rates soften modestly in fourth quarter, influenced by macroeconomic factors and the varying appetites of buyers and sellers

Each sector saw varying cap rate fluctuations through 2016, dynamics further divergent by market profile. Investor demand was a key factor in these dynamics. Adding to that, cap rates also saw mild fluctuations due to macro events, influencing the appetites of buyers and sellers. Macroeconomic volatility moderated through the end of the summer as the national economy proved healthy, benefiting property market fundamentals and supporting cap rate compression. However, with rising long-term interest rates in the latter months of the year, net lease cap rates began a modest upward trend, softening on average by 25 basis points across sectors. Despite this softening, as of January 2017, the average net lease cap rate remains at a healthy 363-basis-point spread to the 10-Year Treasury yield.

As a new Presidential administration causes uncertainty on policy priorities and tax reform and the Federal Reserve points to further rate increases in 2017, investors continue to speculate on the directionality of cap rates. As a result, a number of transactions were slightly delayed in the latter part of the year and in early January as buyers contemplated re-pricing for on-market transactions in response to increases in their cost of capital, the costs of both debt and equity. While broader market responsiveness is usually temporary and capricious, it is important to maintain a focus on investor liquidity trends and the quality of assets transacting as key factors in asset pricing. Cost of capital and potential tax reform, specifically in the 1031 exchange space, will drive shifts in yield requirements. However, the quality of long-term, net leased assets will likely be impacted less than the broader markets in the near term.

## Net lease cap rates respond to macroeconomic volatility in 2016

Net lease cap rates soften modestly at year-end 2016, influenced by macroeconomic factors and the varying appetites of buyers and sellers



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0M), Board of Governors of Federal Reserve

## Notable primary market transactions, Q4 2016 \*

Tenant	Sector	Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)
Britannia East Grand - Genentech	Office	San Francisco	660 E Grand Ave	Roche	HCP Inc.	\$311,000,000	500,000
National Cancer Institute Headquarters	Office	Washington, DC	9609 Medical Center Dr	USAA Real Estate	JBG Cos	\$260,154,000	588,891
Amazon Headquarters - Phase 7	Office	Seattle-Bellevue	400 9th Ave N	Tristar Capital / RFR Realty / Mirae Asset Financial	Vulcan Inc.	\$243,900,000	319,000
Union Bank	Office	San Francisco	430 California Street	Kennedy Wilson / Takenaka	Union Bank	\$120,959,387	295,783
Northrop Grumman	Industrial	Los Angeles	835 Lapham St	Hackman Capital	Northrop Grumman	\$81,500,000	540,210
3M Warehouse	Industrial	Chicago	3050 Corporate Dr	GC Essential Asset REIT II	Clayco / Venture One	\$69,400,000	987,000
FedEx - Bridgeport, PA	Industrial	Philadelphia-Central PA	601 River Rd	Ping An Insurance	SunCap	\$64,200,000	305,733
Dolce & Gabbana	Retail	New York	155 Mercer St	ASB Capital	Thor Equities	\$69,750,000	14,600
Mariano's Bronzeville	Retail	Chicago	3857 S Martin Luther King Dr	Undisclosed	WBS Equities, Abbott Land & Investment, Chicago Neighborhood Initiatives, Safeway Construction	\$34,000,000	74,817
AMC Village 7	Retail	New York	66 3rd Ave	ABS Partners / Benenson Capital	Charles J Re Jr	\$32,250,000	54,328

## Notable secondary market transactions, Q4 2016 \*

Tenant	Sector	Market	Property	Buyer	Seller	Price (\$)	Size (s.f.)
Two Riverfront Plaza - Panasonic	Office	Northern New Jersey	826-836 McCarter Hwy	Arch Street Cap Advisors / Muthanna Investment Company	SJP Properties / Matrix Development	\$165,000,000	337,543
Citibank Center	Office	Tampa	3800 Citibank Center	Citigroup	Zurich Financial	\$116,000,000	676,710
Riata Crossing North	Office	Austin	12535-12555 Riata Vista Circle	Karlin Real Estate	DivcoWest	\$107,000,000	324,963
Hewlett Packard	Office	San Diego	16399 W Bernardo Dr	Swift Realty Partners	Hewlett-Packard	\$69,000,000	782,211
Amazon Fulfillment CMH1	Industrial	Columbus	11901 National Rd SW	GC Essential Asset REIT II	Prologis	\$88,898,030	855,000
Unified Grocers	Industrial	Seattle-Bellevue	3301 S Norfolk Street	Prologis	Sabey Data Center Properties	\$78,880,000	1,050,000
Toshiba America	Industrial	Orange County	9740 Irvine Blvd	LBA Realty	Toshiba Corporation	\$65,000,000	446,856
Bonanza Gift Shop	Retail	Las Vegas	2400 S Las Vegas Blvd	Haim Gabay & Rachel Gabay RT	Eastern Real Estate LLC	\$50,000,000	40,000
Whole Foods	Retail	Milwaukee	2305 N Prospect Ave	Waco LLC	Irgens Development	\$22,200,000	53,875
Bank of America	Retail	Fort Lauderdale	212 SE 2nd Ave	Stiles	Bank of America	\$13,100,000	2,797

\* single-assets



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