TIAA-CREF Asset Management

Real Estate Quarterly Highlights

Third Quarter 2015

What's Inside

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Financial Services

U.S. Commercial Real Estate Outlook

Capital Markets

Risk Spreads and Interest Rates

Capital Markets drive CRE pricing through Treasury rates and risk spreads. Ten-year Treasury yields started 3Q at 2.35% as investors anticipated a rate hike, but slipped below 2.00% when markets became volatile. Yields have since increased to 2.30% as of mid-4Q as expectations of a December rate hike have grown. Higher Treasury yields could ultimately push cap rates higher, but increases in cap rates have historically lagged by 6 to 9 months.

Labor Market

Employment and Unemployment Rate

Employment growth drives demand for space. Employment grew by a moderate 513,000 jobs in 3Q15 vs. 692,000 jobs in 2Q15, pushing the unemployment rate down to 5.1%. October brought a significant 271,000 increase in jobs, solidifying expectations of an imminent FOMC rate hike. Employment growth is expected to exceed two million in 2015. Growth of this magnitude is supportive of real estate demand.

Leading Indicators of U.S. Commercial Real Estate Performance — 3Q2015

Indicators	Position	Stall	Overheat
Interest rates	Historically low interest rates make real estate investment attractive, but higher Treasury yields could push cap rates higher eventually		
Investor risk appetite	High-yield spreads have widened reflecting investors' appetites for less risk; this potentially places a floor under cap rate spreads		
Debt for investors	Commercial real estate mortgages are readily available; recent Senior Loan Officer Survey indicates that standards have been gradually easing		
Debt for construction	Construction lending standards have eased somewhat, but recourse loans and moderate loan-to-cost ratios prevail		
Employment growth	Job gains have averaged nearly 200k jobs per month in 2015; these solid average gains are supportive of real estate demand		
Unemployment rate	Labor market is continuing to tighten, approaching the FOMC's median estimate of longer-run normal unemployment rate (as of September 2015)		
Vacancy rates	Even with rising new construction, vacancy rates are expected to remain in proximity of long-term averages and below		
Commercial property rents	Rent growth trends are mixed across property types depending on new supply; APT have remained resilient despite elevated deliveries		

Source: TIAA-CREF, as of 3Q15

Debt Availability

Construction and Investor Financing

Debt Flows affect the amount of new construction and sales volume of existing properties. Solid total returns, improving rents and vacancy rates, and ample debt availability have generated a modest, but growing construction pipeline. Construction lending standards have eased somewhat, but recourse loans and moderate loan-to-cost ratios prevail. Availability of commercial mortgage financing is a positive for real estate investors, but hungry capital can become destructive if credit standards erode and new construction lending becomes dislodged from demand. There are some indications of credit quality erosion in CMBS lending.

CRE Fundamentals

Vacancy Rates and Rent Growth

CRE Market Fundamentals drive net operating income growth. Despite an uptick in construction, fundamentals continued to improve across all sectors in 3Q. Prospects remain most favorable for the office, industrial, and retail sectors due to limited construction and expected demand growth. Multifamily markets bear monitoring given the construction pipeline and recent permitting. Most apartment markets have absorbed recent deliveries without an increase in vacancies, but pipelines are still growing. Rent growth has slowed, but has remained positive due to demographic-driven demand.

Conclusions

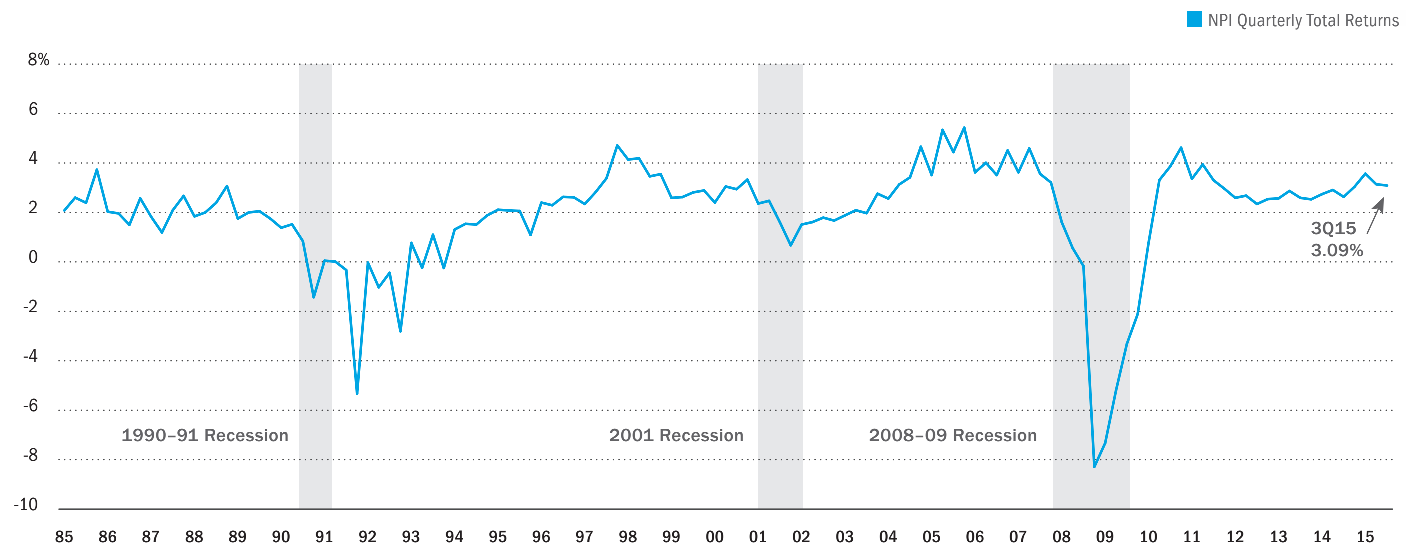
Looking ahead to 2016, analysis of leading indicators suggests a continued positive foundation for real estate operational performance.

Interest rates remain historically low and widening high-yield bond spreads reflect somewhat diminished investor risk appetites. Commercial mortgage financing remains readily available and borrowing conditions have become increasingly favorable during the current recovery. Strong domestic and foreign investor demand for U.S. properties is likely to continue, supported by favorable economic and job conditions. Forecasts of moderate new supply and solid demand are anticipated to result in attractive fundamentals and solid operational performance (NOI growth).

While the prospects for U.S. CRE still look bright, it is important to recognize that economic and financial markets are still roiled by increased financial market volatility. This may prove to be problematic since real estate cycles typically turn either due to accumulating negative imbalances affecting demand and/or supply drivers or macro-economic shocks. Over-building, over-lending, over-buying, and over-leasing are imbalances that have characterized past downturns—all appear unlikely under current conditions. Increased volatility also indicates heightened sensitivities to shocks, but CRE markets are generally well-balanced nationally and any shock would likely be well-tolerated.

With the run of strong total returns during the recovery—and the rising property values embedded in them—there is likely limited potential for further compression of cap rates, especially for higher-quality properties in more desirable locations. As a result, NOI growth is expected to be the primary driver of total returns going forward. In this environment, new construction is likely to be a key determinant of future NOI growth and a fundamental differentiator of market performance in the next phase of the CRE cycle. Forecasters are not losing sight of performance constraints. The latest PREA consensus survey (as of 3rd Quarter 2015) shows NPI total return expectations of 11.5% and 8.5% for 2015 and 2016, respectively—a three percentage point drop reflecting a decline in the contribution from expected property appreciation returns[1]. Although real estate total returns are anticipated to weaken in 2016, they will likely remain attractive compared to other asset classes.

Economic and Real Estate Cycles



Sources: NBER; NCREIF, as of 3Q15; TIAA-CREF

U.S. Real Estate Performance Overview

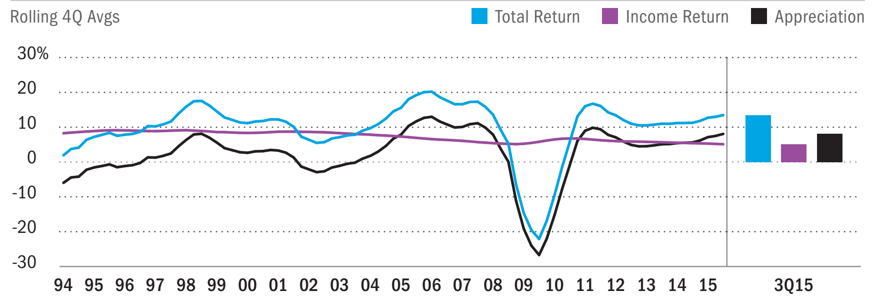
Total Return Remains Compelling
The NCREIF Property Index (NPI) ended 3Q15 with a four-quarter 13.5% total return, compared with 13.0% in 2Q15. Four-quarter income and appreciation returns were 5.1% and 8.1%, respectively. The NPI has now posted twenty consecutive quarters of double-digit four-quarter rolling total returns. While the real estate cycle is mature, cycles do not expire. Instead, negative imbalances related to factors like real estate fundamentals, credit markets, investment markets, and the economy can accumulate and impact investment performance. At this time, accumulating negative imbalances are not evident, but total returns are anticipated to moderate and return to long-term historical averages.

Valuation Cap Rates Move Lower
Cap rates implied by NPI property valuations averaged 5.33% for the four quarters ending September 2015 vs. 5.42% previously. Real estate investors worry that an uptick in 10-year Treasury yields from an anticipated FOMC rate hike will result in rising cap and discount rates. But, a growing economy coupled with a slow and gradual rise in interest rates would likely sustain the current real estate cycle. Treasury yields had dipped just below 2.00% in early 4Q, but have since increased to roughly 2.30%. Current cap rate spreads over 10-year Treasuries are still in-line with long-term averages and suggest that current property pricing is reasonable.

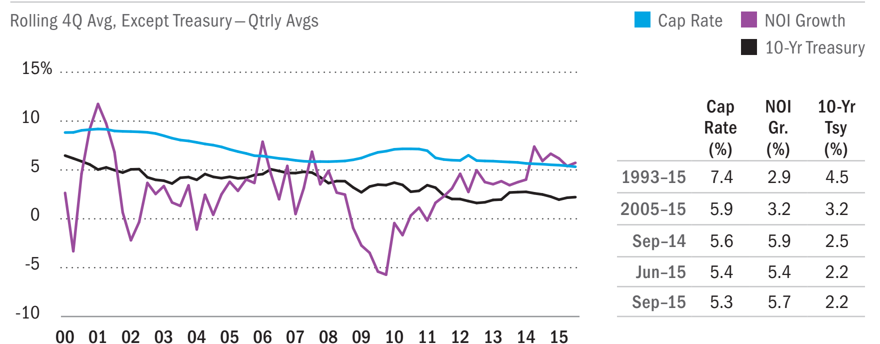
Solid Returns in Virtually All Markets
NPI returns were healthy across the nation, with positive one-year total returns recorded in all but one NCREIF market (Richmond at -3.11%). The West led for the fourth straight quarter, with average one-year total returns of 15.2%; the South was second again with a 14.2% total return. Returns in the Midwest and East were also healthy at 12.8% and 11.5%, respectively. San Francisco, Oakland and Phoenix repeated as top-performing major markets; Riverside, Atlanta, Denver, and all of South Florida followed. Washington, DC and Bethesda remained laggards as these markets remain under pressure from weaker federal government leasing and spending.

Transaction Activity Remains Healthy
Commercial property sales (excluding hotels and land) totaled $102 billion in 3Q15, compared with $104 billion in 2Q15. The Big Six—Manhattan, LA, San Francisco, Washington, DC, Boston, and Chicago—have accounted for almost 30% of 2015 year-to-date sales volume. However, activity in Boston, Atlanta, Dallas, Houston, San Jose, and Seattle was also strong and accounted for another 17% of the total. LA, Riverside, Chicago, Dallas and Northern New Jersey were industrial sales leaders. Manhattan and LA were leading apartment investor markets with strong activity also in the NY City Boroughs, Dallas and Atlanta.

NCREIF Returns for All Property Types

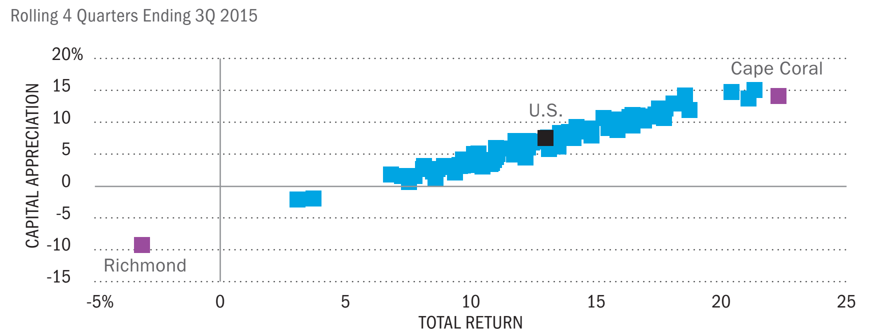


Pricing for All Property Types

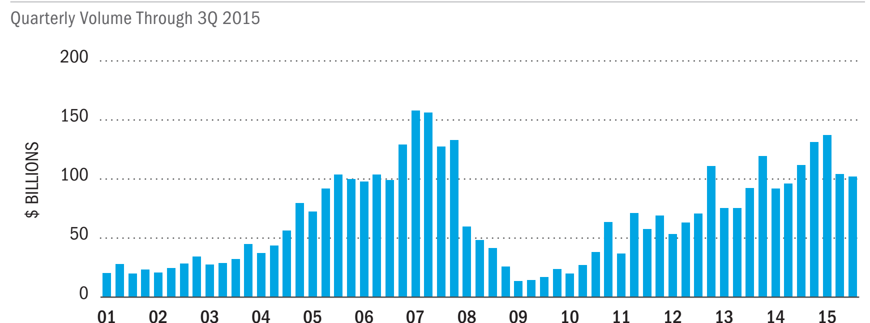


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.4	2.9	4.5
2005–15	5.9	3.2	3.2
Sep–14	5.6	5.9	2.5
Jun–15	5.4	5.4	2.2
Sep–15	5.3	5.7	2.2

NCREIF MSA Dispersion



RCA Transactions



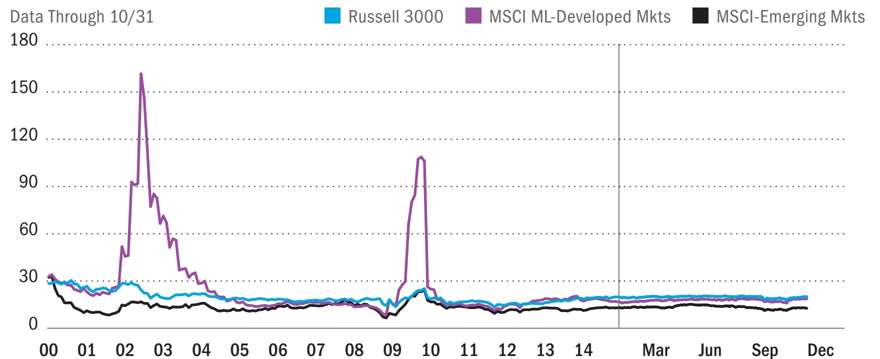
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Financial Markets Overview

Equity Markets Weather 3Q Volatility

Volatility hit global markets again in 3Q due to concerns about slowing growth in China. The Russell 3000 Index fell 7.5% in 3Q, including a 10% decline during one week. European and Asian markets were also affected with the FTSE declining 12% and the Hang Seng giving up 15% during a tumultuous August. Emerging stock markets were even more volatile, closing 3Q with a 19% decline. The Chinese government continued to prop up the market with share purchases and new regulations after a 30% drop in the Shanghai Composite Index in early 3Q, but such measures may lose effectiveness over the long term. Geopolitical risks escalated too with Russia becoming directly involved in Syria. Diverging economic growth trends and central bank policies along with geopolitical events have the potential to fuel further volatility in equities, fixed income, and currencies in the coming quarters.

U.S. vs. Foreign Stocks

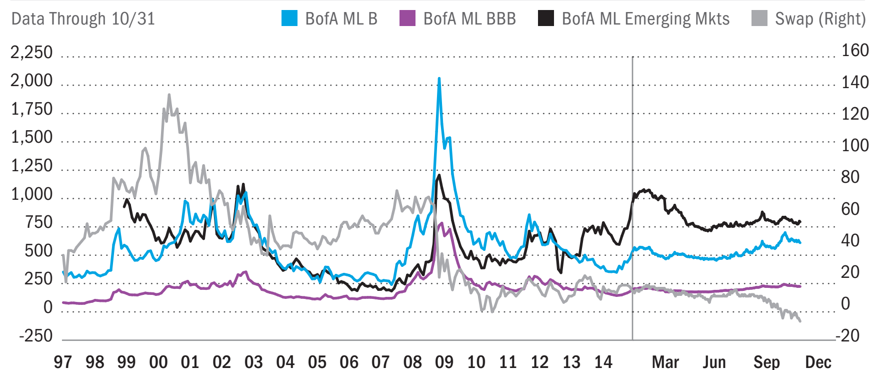


U.S. Russell and foreign Morgan Stanley Capital International (MSCI) stock index P/E ratio

Credit Spreads Widen

After tightening in 2Q15, credit spreads widened in 3Q in response to financial markets volatility. High-yield B-quality corporate bond spreads increased from 489 bps at the start of 3Q to 680 bps at the end of the quarter. The widening of high-yield bond spreads reflect somewhat diminished investor risk appetites. Investment grade BBB bond spreads increased 49 bps, rising from 191 to 240 bps at quarter's end. However, B and BBB spreads have since tightened 16 and 73 bps, respectively, as of mid-4Q. Emerging markets bond spreads widened sharply in the third quarter, from 753 bps at the start of the quarter to 835 bps at quarter's end.

Credit Spreads

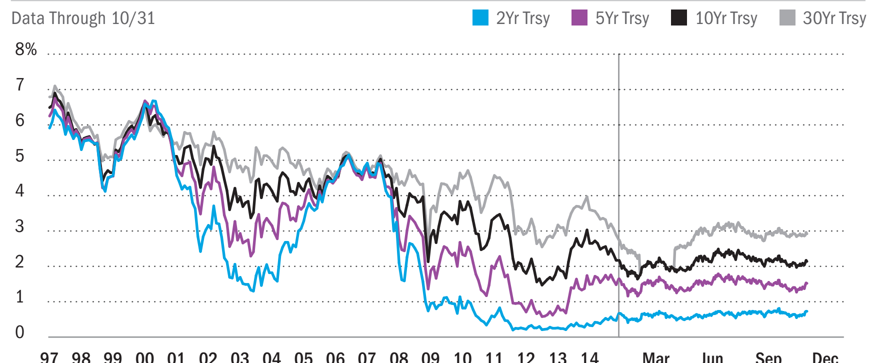


BofA Merrill Lynch Global Indices Option-adjusted Spreads (OAS), except 10-yr Swap which is a simple spread over the 10-yr Treasury rate.

U.S. Markets Await Rate Hike

Since the end of QE in October 2014, 10-year Treasury yields remained low, even dropping below 2.00% in early 2015. Yields started 3Q at 2.35% on June 30, but fell below 2.00% during the quarter's most volatile period. Yields have since increased to 2.30% as of mid-4Q, as a solid October job report fueled anticipation of a rate increase. However, the FOMC has suggested that increases will occur gradually as the impact of higher rates on economic growth is assessed. By comparison, sovereign bond yields in Europe are largely below 2.00% and below 1.00% in the case of Germany, France and the Netherlands. Investor reaction to a FOMC rate hike given the varying global economic outlooks and sovereign bond yields is another potential source of market volatility.

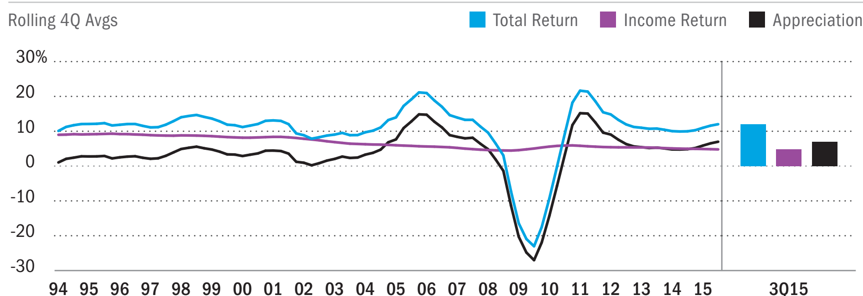
U.S. Treasury Rates



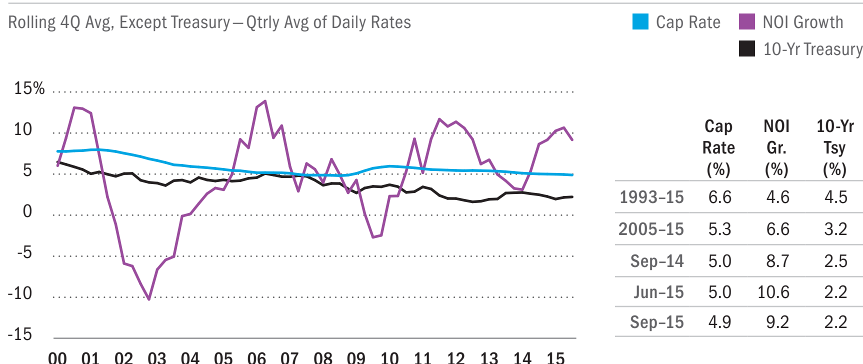
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Apartment Market Overview

Apartment Properties Trail Again
Apartment total return was the weakest of the four major property types for the fourth consecutive quarter. The sector nonetheless generated double-digit returns of 12.0% for the four-quarter period ending September 2015, up from 11.6% in 2Q15. Income returns contributed 4.8% once again, while appreciation returns increased to 7.0% from 6.5% previously. The uptick in appreciation is noteworthy given the moderation in rent growth in many markets due to new supply.

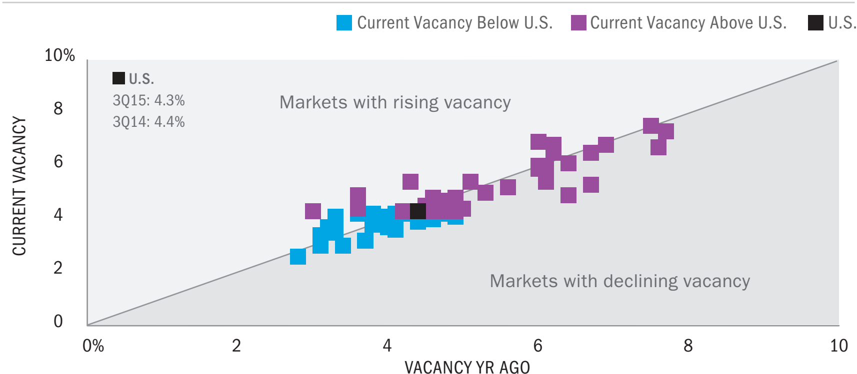


Apartment Cap Rates Remain Stable
Cap rates implied by NPI apartment valuations averaged 4.89% for the four quarters ending September 2015, compared with 4.95% in the prior quarter. The dip in cap rates was less than for other property types, but is indicative of still healthy fundamentals in spite of strong value growth of recent years and ongoing new supply. According to RCA, transaction cap rates averaged 5.8% nationally, but mid- and high-rise product and properties in the largest apartment markets averaged just under 5.0%. The best properties in top markets command cap rates of 4.0% or lower, which has spurred investor interest in higher-yielding secondary markets.

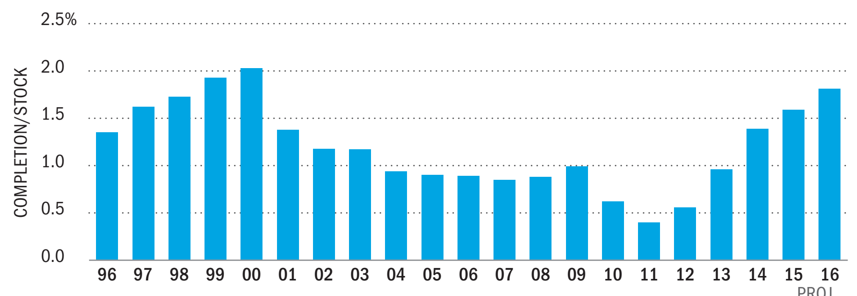


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	6.6	4.6	4.5
2005–15	5.3	6.6	3.2
Sep–14	5.0	8.7	2.5
Jun–15	5.0	10.6	2.2
Sep–15	4.9	9.2	2.2

Apartment Markets Maintain Strength
Apartment market conditions remained tight with the national vacancy rate averaging 4.3% in 3Q15 vs. 4.4% in 3Q14. (Year-over-year comparisons are necessary to account for seasonal leasing patterns.) Third quarter is a prime leasing period, so the improvement is indicative of still healthy market fundamentals and demand. Vacancy rates declined in 35 of the 62 markets tracked by CBRE-EA. While a new wave of supply will be delivered in 2016, markets remain tight, with vacancy rates at or below 5% in 43 markets and at or below 4.5% in 35 markets.



More Supply Coming
New product is being delivered in both high- and low-barrier-to-entry markets; construction nationally is expected to total 223,000 units in 2015 according to CBRE-EA. Construction was expected to peak in 2016 at 257,000 units, but recent permitting activity suggests that peak construction could occur in 2017. Minimal vacancy, unit demand generated by healthy job growth, and favorable demographic trends should provide a cushion for increased supply in many markets. Nonetheless, moderation in rent growth should be anticipated, while new units are being absorbed.



Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Industrial Sector Retains Top Spot

Industrial total return was the highest among the four major property sectors for the fourth straight quarter. Total returns averaged 15.6% for the four-quarter period ending September 2015, up from 14.8% in the prior quarter. Income returns were steady once again at 5.6%, but appreciation returns jumped for the fourth straight quarter to 9.7% from 8.8% previously. Industrial markets likely benefited from a rebound in U.S. industrial production which grew 1.8% in 3Q15 following a 1.4% decline in 2Q15 as strong gains in auto production offset continued weakness in mining/ oil production.

Cap Rates Dip While NOI Growth Slows

Valuation cap rates inched down to 5.56% for the four quarters ending September 2015 vs. 5.63% previously. Transaction cap rates reported by RCA averaged 6.8%, down from 6.9% previously, but cap rates for top properties in major industrial markets are 5.5% or less. Industrial NOI grew 7.5% on a four-quarter rolling basis, after growing 3.7% in the previous quarter. The continued strength in NOI growth is reflective of healthy market fundamentals and the rollover of leases signed at the 2009 market trough.

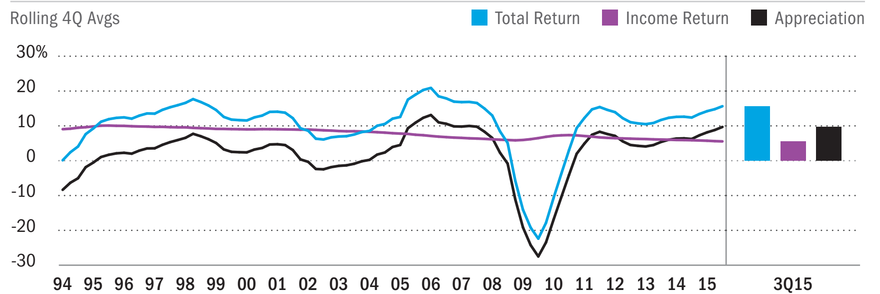
Industrial Availability Tightens Further

The U.S. industrial availability rate fell to 9.6% vs. 9.8% in 2Q15, the nineteenth consecutive quarterly decline, and matching the pre-recession low in 4Q07. Market gains were broad-based, with the availability rate declining in 48 of the 56 markets tracked by CBRE-EA. Major markets with the lowest availability rates were once again almost exclusively in the West and included LA, Orange County, Seattle, Portland, Denver and Riverside. Nationally, fundamentals remain healthy with absorption of 50 to 70 million square feet in the last three quarters as compared with construction of 30 to 40 million square feet.

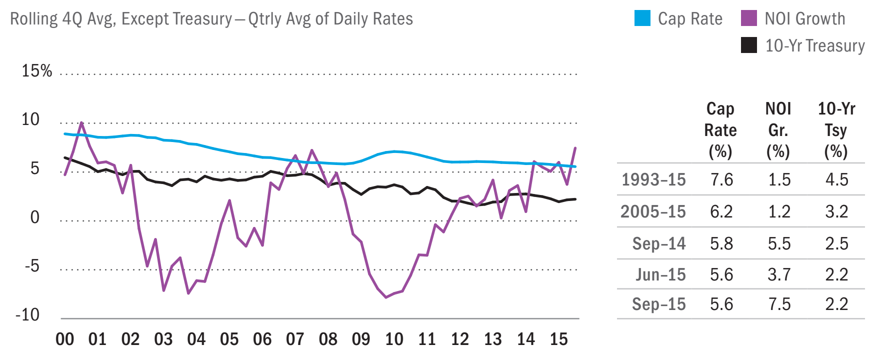
Construction on the Rise

Declining vacancies, healthy rent growth, and strong acquisition activity has spurred an increase in construction, with the biggest pipelines in Riverside, Chicago, Dallas/Ft. Worth, and Atlanta. A portion consists of build-to-suits prompted by a shortage of large blocks of space that meet tenant-specific requirements. There is also pent-up demand from the lack of construction from 2010 to 2012. Speculative construction is on the rise, and while it is expected to remain well below historical peak levels, it bears close monitoring given the relatively short construction timetable for warehouse property.

NCREIF Industrial Returns

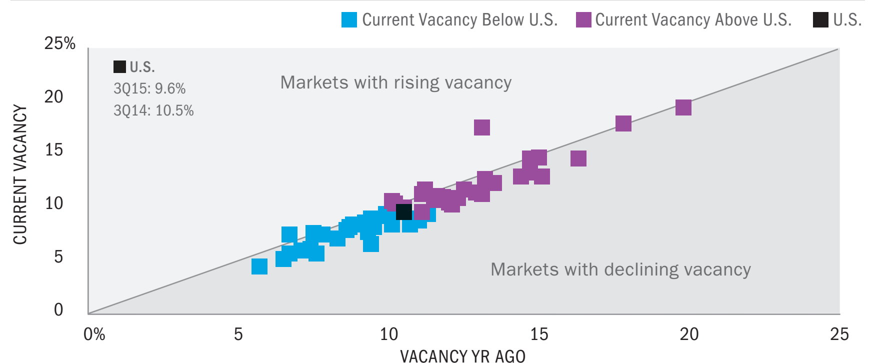


Industrial Property Pricing and Treasury

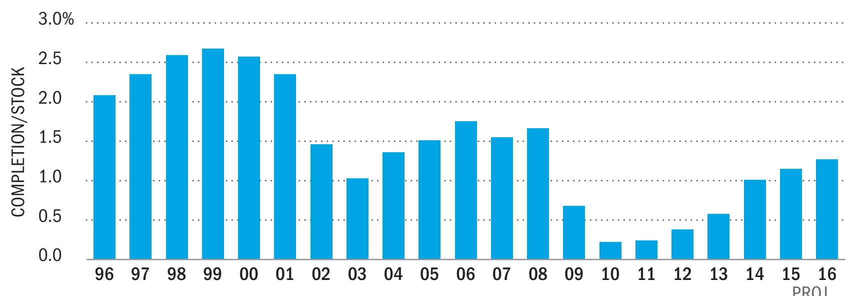


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.6	1.5	4.5
2005–15	6.2	1.2	3.2
Sep–14	5.8	5.5	2.5
Jun–15	5.6	3.7	2.2
Sep–15	5.6	7.5	2.2

Industrial Vacancy Rate Dispersion



Industrial Construction

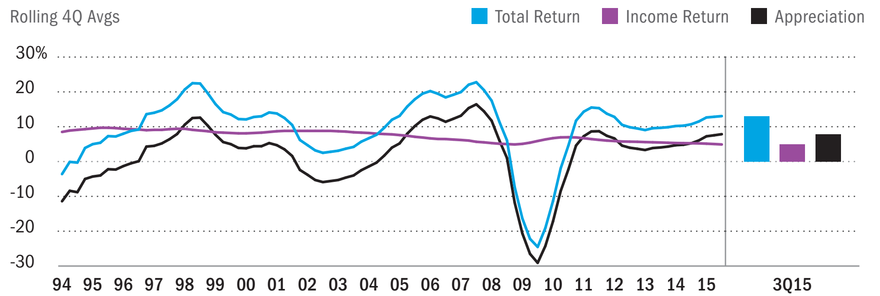


Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Office Market Overview

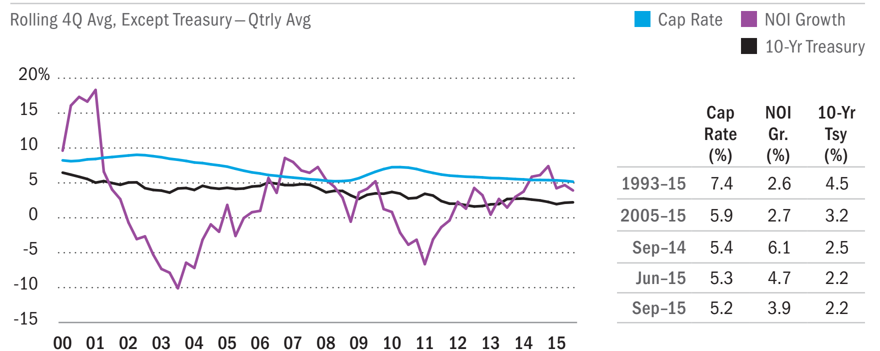
Office Sector Returns Strengthen Further
The office sector's total return inched up to 13.1% for the four-quarter period ending September 2015 vs. 12.9% previously. Income returns were 4.9% vs. 5.0% previously, while capital returns climbed to 7.9% from 7.5% previously. The office sector has been the slowest of the four major property types to recover, but progress is continuing. Nationally, absorption has totaled 10 to 20 million square feet in the last three quarters compared with construction of 5 to 10 million square feet.

NCREIF Office Returns



Cap Rates Stable While NOI Grows
Office cap rates implied by NPI valuations have inched down over the past two years, and declined to 5.18% in 3Q15 vs. 5.30% previously. According to RCA, transaction cap rates in 3Q15 averaged 6.7% nationally, declining 20 basis points vs. 2Q15. An approximate 150 bps cap rate differential remains between major and secondary markets and CBDs and suburbs. Cap rates for top properties in major metro markets are even tighter at 4.0% to 4.5%. NOI growth, which averaged 3.9% on a four-quarter rolling basis in 3Q15 following more than 4% increases in the prior two quarters, is likely to remain healthy in the coming quarters given sector fundamentals.

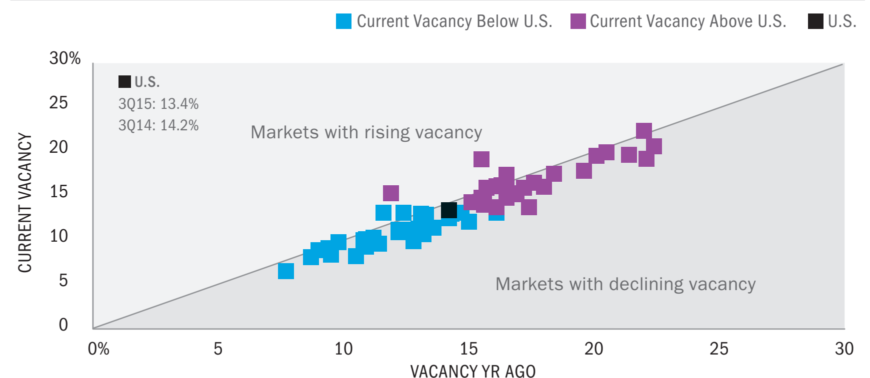
Office Property Pricing and Treasury



	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.4	2.6	4.5
2005–15	5.9	2.7	3.2
Sep–14	5.4	6.1	2.5
Jun–15	5.3	4.7	2.2
Sep–15	5.2	3.9	2.2

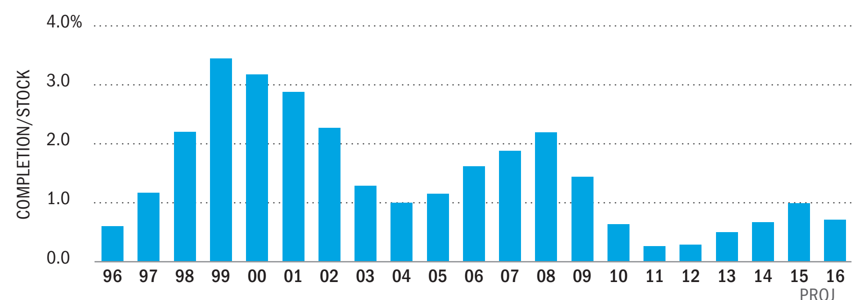
Office Fundamentals Improving Slowly
The national office vacancy rate dipped to 13.4% in 3Q15 from 13.5% previously, but has declined 80 bps year-over-year. Headwinds prevail—e.g., space reductions due to telecommuting and rightsizing by legal firms—but growth in professional and business services, tech, entertainment, and media have been a sizeable source of demand in many markets. There was another strong showing at the market level with vacancy rates declining in 52 of the 62 markets tracked by CBRE-EA.

Office Vacancy Rate Dispersion



Office Pipeline Modest but Growing
With its long lead time, office construction is highly cyclical. With market conditions and rents supporting new construction in many markets, construction is ramping up slowly. The largest pipelines are in New York, San Francisco, Seattle and Houston, although there is significant pre-leasing in the first three markets. Functional obsolescence of older buildings is driving demand for new product as technologically-efficient, state-of-the-art space provides operational benefits and lower costs for tenants and investors. While construction is picking up, it is expected to remain modest in 2016, especially compared with prior cycles.

Office Construction



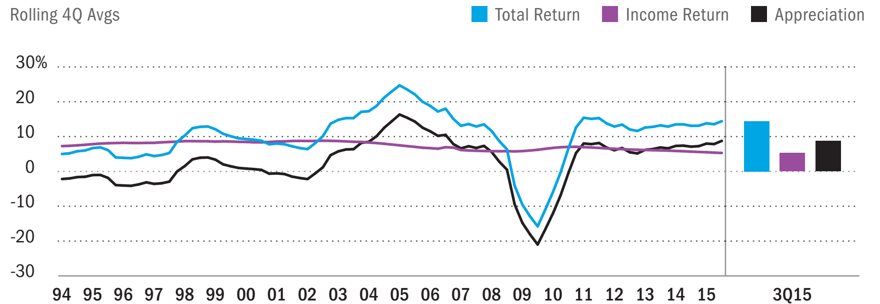
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Retail Market Overview

Retail Returns Remain Steady

The retail sector's total return stayed in second place among the four major property types for the fourth straight quarter. Total return averaged 14.4% for the four-quarter period ending September 2015 vs. 13.6% previously. Income returns were largely unchanged from the prior quarter at 5.3%, while capital returns jumped to 8.8% from 7.9% previously.

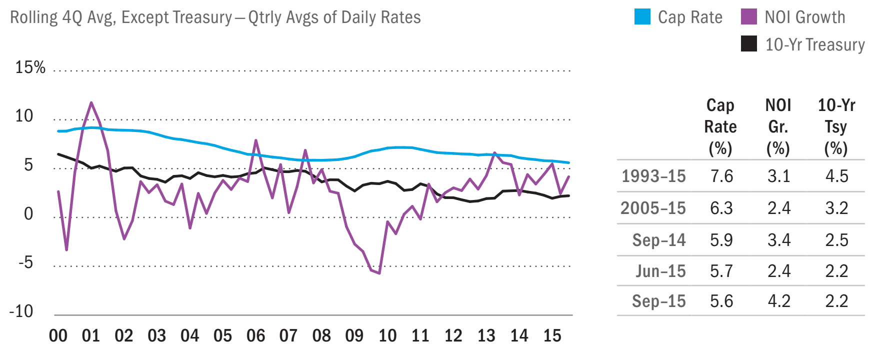
NCREIF Retail Returns



Retail Cap Rates Stabilizing

Retail cap rates, as implied by NPI property valuations, averaged 5.6% for the four-quarter period ending September 2015 as compared with 5.7% in the prior quarter. According to RCA, retail transaction cap rates averaged 6.5% in 3Q15, down 30 bps year-over-year. However, there is significant variation among property sub-types and markets. Super-regional malls and top properties in major metros are in especially strong demand and garner commensurately lower cap rates.

Retail Property Pricing and Treasury

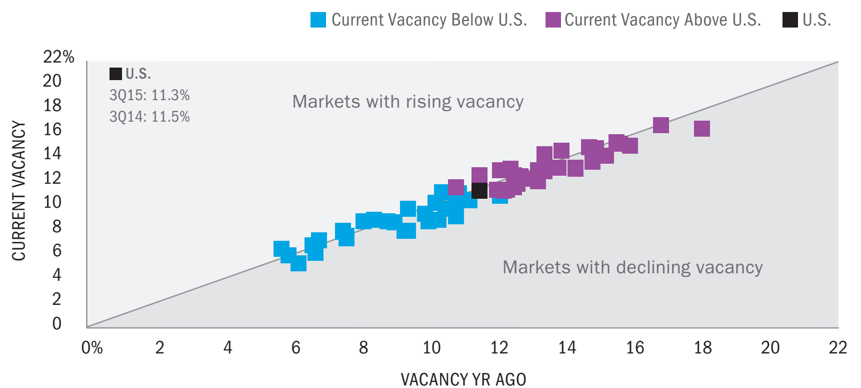


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.6	3.1	4.5
2005–15	6.3	2.4	3.2
Sep–14	5.9	3.4	2.5
Jun–15	5.7	2.4	2.2
Sep–15	5.6	4.2	2.2

Retail Fundamentals Still Soft

Availability rates in neighborhood and community centers inched down to 11.3% in 3Q15 vs. 11.4% in 2Q15. Consumer spending has been strong, growing 3.2% in 3Q and 3.6% in 2Q, but with the strongest spending on durable goods (e.g., autos) rather than apparel, general merchandise and other shopping center-type goods. Nationally, fundamentals remain healthy with absorption outpacing construction by a healthy margin. Vacancy rates in community and neighborhood centers remain elevated, but declined in 40 of the 62 markets tracked by CBRE-EA. Modest sales growth coupled with minimal construction should continue to benefit retail markets in 2016.

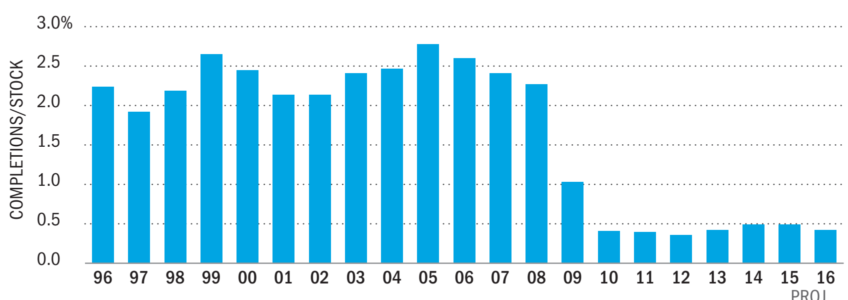
Retail Vacancy Rate Dispersion



Retail Construction at Historic Lows

Neighborhood and community center construction is expected to total just 13 million square feet in 2016. With completions remaining subdued through 2016, a meaningful increase in construction is not expected for a number of years. Outlet centers are experiencing the most growth, driven by strong interest in bargain shopping. While not directly competitive with other segments, outlets do compete for consumers' dollars.

Retail Construction



Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

[1] Pension Real Estate Association Consensus Forecast Survey of the NCREIF Property Index, Third Quarter 2015.

Real Estate Investment Quarterly Highlights: Third Quarter 2015 is prepared by TIAA-CREF Asset Management and represents the views of TIAA-CREF's Global Real Estate Group as of November 2015. These views may change in response to changing economic and market conditions. Past performance is not indicative of future results. The material is for informational purposes only and should not be regarded as a recommendation or an offer to buy or sell any product or service to which this information may relate. Certain products and services may not be available to all entities or persons.

Data is as of 9/30/2015 unless noted otherwise.

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