TIAA-CREF Asset Management

Real Estate Quarterly Highlights

First Quarter 2015

What's Inside

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TIAA CREF
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 hovered around 2.0% during 1Q, but rose to 2.25% early in 2Q as investors anticipated an upcoming rate hike. The FOMC has signaled that it will likely raise rates provided there is further improvement in the labor market and inflation stabilizes at or close to its 2% target. Higher Treasury yields should 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 modest 591,000 jobs in 1Q15 vs. 973,000 jobs in 4Q14, though temporary factors such as extreme winter weather and declining oil prices were partially to blame. April brought a healthier increase of 223,000 jobs, reinforcing expectations of stronger gains in the coming quarters. Employment growth is expected to exceed three million in 2015. Growth of this magnitude is supportive of real estate demand.

Leading Indicators of U.S. Commercial Real Estate Performance — 1Q2015

Indicators	Position	Stall														Overheat
Interest rates	Historically low making real estate investment attractive												■			
Investor risk appetite	Heightened volatility over the past 6 months											■				
Debt for investors	Commercial mortgages available with easing standards												■			
Debt for construction	Easing, but not yet abundant										■					
Employment growth	Solid average gains; labor market continuing to tighten											■				
Unemployment rate	Much improved, but with low labor force participation										■					
Vacancy rates	Mostly declining to long-term averages and below											■				
Commercial property rents	Mixed across property types depending on new supply										■					

Source: TIAA-CREF, as of 1Q15

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 expanding debt availability have generated a relatively 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 a modest uptick in construction, fundamentals generally continued to improve across all sectors in 1Q. Prospects remain most favorable for the office, industrial, and retail sectors due to limited new construction and expected demand growth. Multifamily markets bear monitoring given the 2015 construction pipeline, however, most apartment markets absorbed 2014 deliveries without a material increase in vacancies. Multifamily rent growth slowed, but has remained positive due to favorable demographic-driven demand.

Conclusions

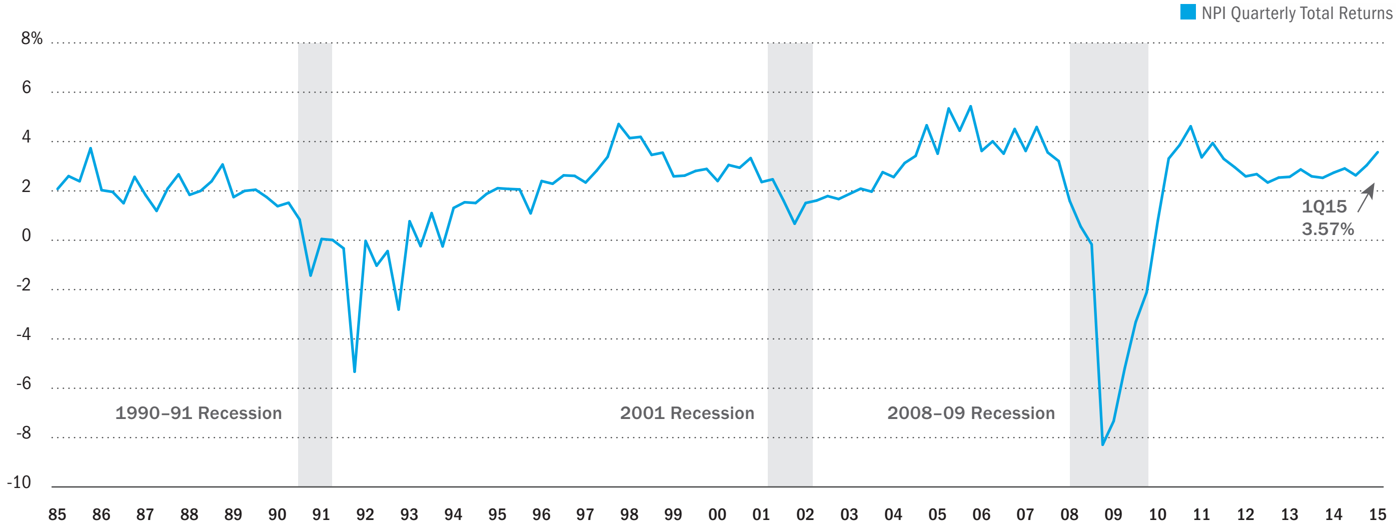
Institutional-quality U.S. commercial real estate (CRE) enjoyed another year of strong performance in 2014, with the NCREIF Property Index (NPI), a widely used benchmark, delivering a total return of 11.8% – its fifth consecutive calendar year of double-digit total returns.

Posting a total return of 3.6% in 1st Quarter 2015, it appears that the NPI is on track for another year of solid performance. While the recent path of returns has been satisfying, past periods of strength have each ended with downturns associated with macroeconomic recessions. The last downturn, in 2009, was profound but short-lived. In contrast, the 2001 downturn was barely detectable, while the 1991 downturn was both severe and prolonged. The message for investors is: (1) celebrate the good times, (2) examine the likelihood of the good times continuing, and (3) identify the vulnerabilities that will determine the shape of the next downturn.

Looking ahead to the remainder of 2015, prospects for CRE are bright, based on improving economic growth, solid job creation, low interest rates, declining vacancy rates, rising rents, and modest new construction. Forecasters are affirming such positive prospects; the latest consensus survey by the Pension Real Estate Association (PREA) shows a 9.8% total return expectation for the year.* But in a real estate environment characterized by solid performance, strong capital flows, and expanding debt availability, conditions are also ripe for new supply. New construction is expected to be the key differentiator of market performance in the next phase of the CRE cycle.

Among sectors, apartments are the furthest along in their cycle. This is evident in prices and rents that significantly exceed past peak values, as well as the substantial pace of construction now underway. Retail appears to be on the other end of the spectrum, with very little new construction and comparatively weaker fundamentals. It bears mentioning, however, that retail sector total returns have led the other three major sectors over the past 15 years, largely due to the investment performance of super-regional malls. Office and industrial property sectors are in earlier phases of recovery.

Economic and Real Estate Cycles



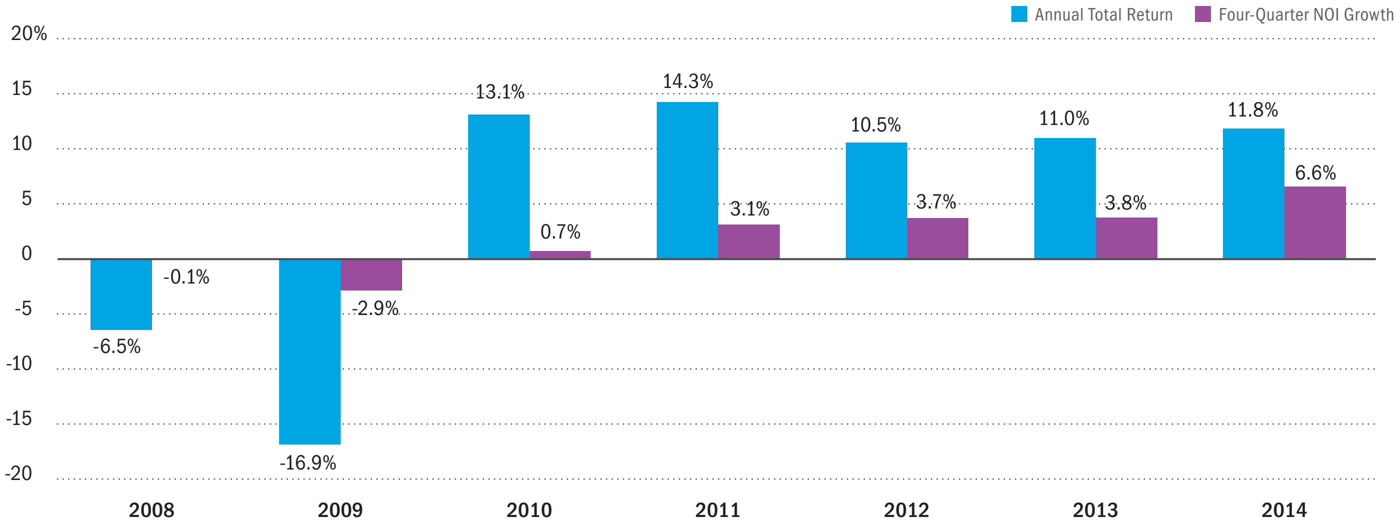
Sources: NBER; NCREIF, as of 1Q15; TIAA-CREF

With all of these positives in place for 2015, it's important not to lose sight of the constraints on CRE performance that are also in play. Chief among these is the limited potential for further compression of cap rates – i.e., the ratio of net operating income (NOI) to property asset value – especially for higher-quality properties in more desirable locations. This suggests that CRE performance will be more dependent on NOI growth. While the anticipated economic outlook seems supportive of that outcome, there is no guarantee that the real world will cooperate. In particular, economic growth outside of the U.S. generally weakened in 2014, with slowdowns in the Eurozone and China of most concern. The U.S. has been able to withstand the drag, and we expect it will continue to do so, but relative global weakness could still leave the U.S. economy more vulnerable to shocks.

If the U.S. economy were to become more vulnerable, so too would U.S. CRE markets. The commercial real estate cycle has no expiration date and does not die of old age. It typically ends when external shocks crash into imbalances that have accumulated slowly over time. Over-building, over-lending, over-buying, and over-leasing are CRE imbalances that have characterized past downturns. When external shocks collide with CRE imbalances, property values and NOI growth suffer. We monitor for such imbalances, and our current analysis offers no reason to expect dire outcomes. Any potential shocks to the economy, should they occur, could lead to some bumps in the road for CRE performance but would not derail it.

In sum, we posit that "the return of volatility" will be the theme of both macroeconomic and CRE developments in 2015. Volatility itself is not a threat to the performance we expect to see in 2015. Rather, it is a catalyst that could cause disruptions in real economic growth or financial market liquidity that would likely not affect real estate immediately or directly, but could have implications later on. The return of volatility is therefore a signal for real estate investors to examine their taste for risk and prepare for eventualities.

NPI Annual Total Returns and Four-Quarter NOI Growth



Sources: NCREIF, as of 4Q14; TIAA-CREF

U.S. Real Estate Performance Overview

Total Return Remains Compelling

The NCREIF Property Index (NPI) ended 1Q15 with a 12.7% total return, compared with 11.8% in 4Q14. The NPI has now posted nineteen consecutive quarters of double-digit four-quarter rolling total returns. While there is recognition that the real estate cycle is maturing, 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 Inch Lower

Cap rates implied by NPI property valuations averaged 5.49% for the four quarters ending March 2015 vs. 5.53% previously. Real estate investors worry that the recent uptick in 10-year Treasury yields and the anticipated FOMC rate hike will result in rising cap and discount rates. The vast majority of Blue Chip economists expect the first rate hike to occur in September 2015. Today's cap rate spreads over 10-year Treasuries suggest that current property pricing is sustainable and offers the potential for further gains.

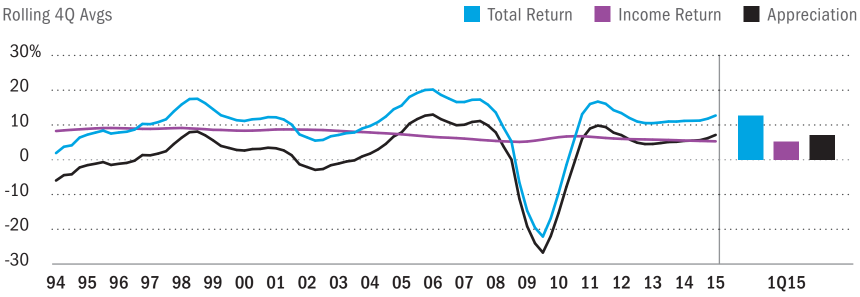
Solid Returns in Virtually All Markets

NPI returns were healthy across the nation, with positive one-year total returns recorded in all NCREIF markets, and double-digit total returns in 70% of markets. The West led for the second straight time, with an average one-year total return of 14.4%; the South followed with a 14.1% total return. For the third straight quarter, San Francisco, San Jose and Oakland were the top-performing major markets; Phoenix, Atlanta, Riverside and Denver followed. Returns in Washington, DC and Bethesda continued to lag as these markets adjust to weaker federal government leasing and spending.

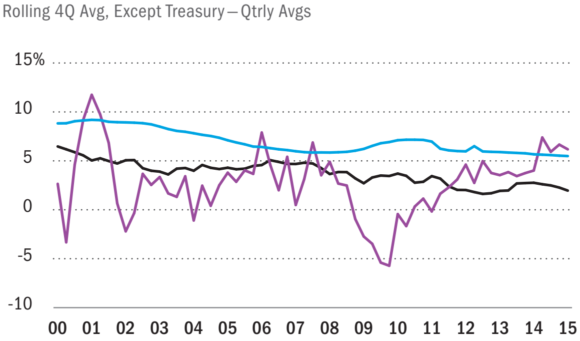
Transaction Activity Remains Healthy

Commercial property sales (excluding hotels and land) totaled $110 billion in 1Q15. The Big Six – Manhattan, LA, San Francisco, Washington, DC, Boston, and Chicago – accounted for 40% of total office volume compared with 60% in the previous quarter. LA, Chicago, and Dallas were industrial sales leaders for the second straight quarter. New York City, LA and Seattle were leading apartment investor markets. Fast growing major metros in the South and Southwest including Dallas, Atlanta, Houston, Denver, and Phoenix also saw strong investor interest for apartments.

NCREIF Returns for All Property Types

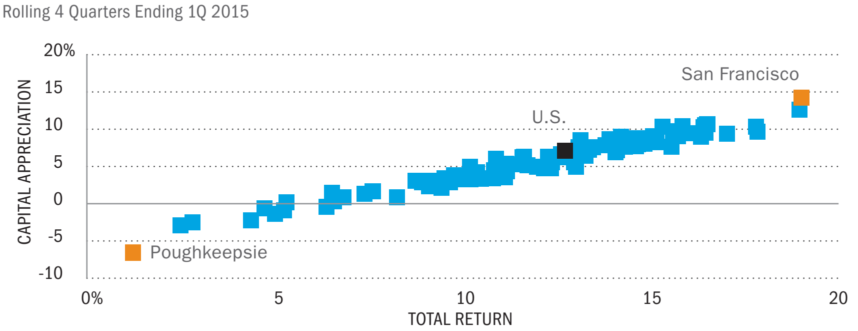


Pricing for All Property Types

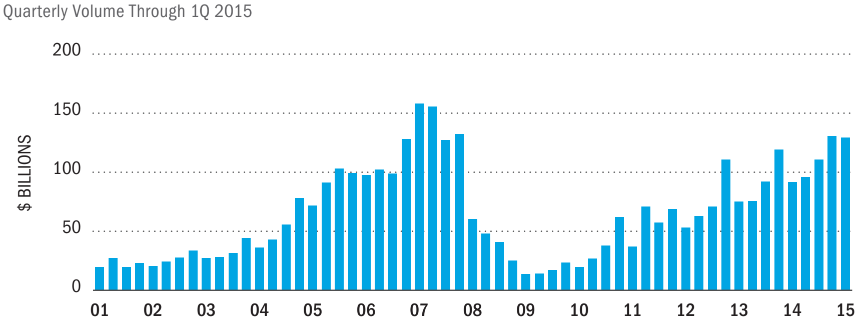


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.4	2.8	4.5
2005–15	6.1	2.7	3.4
Mar–14	5.7	2.8	2.8
Dec–14	5.5	6.7	2.3
Mar–15	5.5	6.2	2.0

NCREIF MSA Dispersion



RCA Transactions



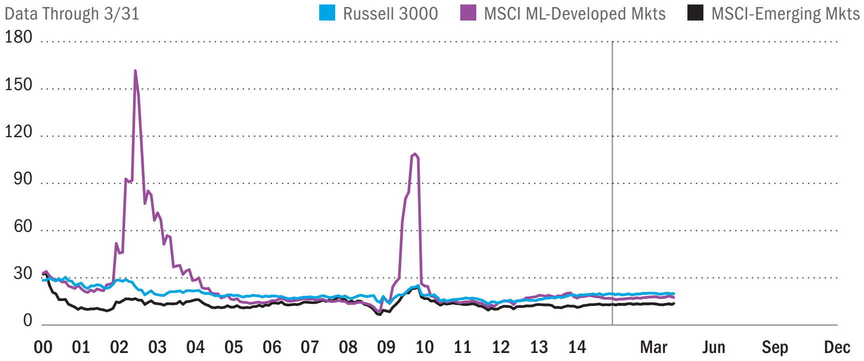
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Financial Markets Overview

Equity Markets Calm

Following a tumultuous 2014, financial markets were relatively calm during 1Q. The Russell 3000 Index was flat in 1Q, and remained so early in 2Q. In Europe, the ECB launched its QE program in March and met its monthly goal of buying some 60 billion euros of government and corporate debt. But, contentious negotiations with Greece were a distraction. While Greece made its first required payment in early 2Q, it has a larger payment due in May and the economy slipped back into recession in 1Q. Meanwhile, the Eurozone reported its strongest GDP growth in two years of 0.4%. Emerging stock markets rebounded with markets up 2% in 1Q and 7% early in 2Q. Russia's deteriorating economy remains a concern with the ongoing bite of sanctions and continued tension in Ukraine. Diverging central bank policies and political risk in Europe are likely to feed volatility in equities, fixed income, and currencies in 2015.

U.S. vs. Foreign Stocks

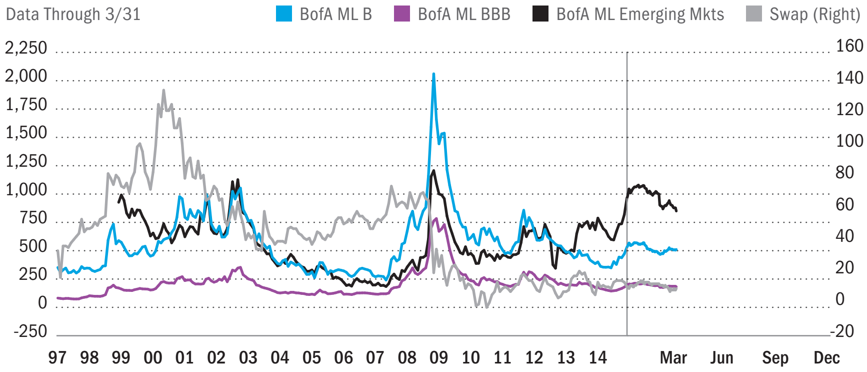


U.S. Russell and foreign Morgan Stanley Capital International (MSCI) stock index P/E ratio

Credit Spreads Tighten

Credit spreads tightened in 1Q15 as the 4Q14 flight to safety abated. High-yield B-quality corporate bond spreads declined from 533 bps at the start of 1Q to 511 bps at the end of the quarter and dropped to 481 bps in early 2Q. Similarly, investment grade BBB bond spreads narrowed from 198 bps to 182 bps at quarter's end and declined further to 179 bps as of early 2Q15. Emerging markets bond spreads had the largest declines, dropping 119 bps during 1Q and another 97 bps in early 2Q. Credit spreads are among the most volatile financial markets indicators, and with expectations of rising interest rates and heightened investor sensitivity, increased volatility in credit spreads should be anticipated in 2015.

Credit Spreads

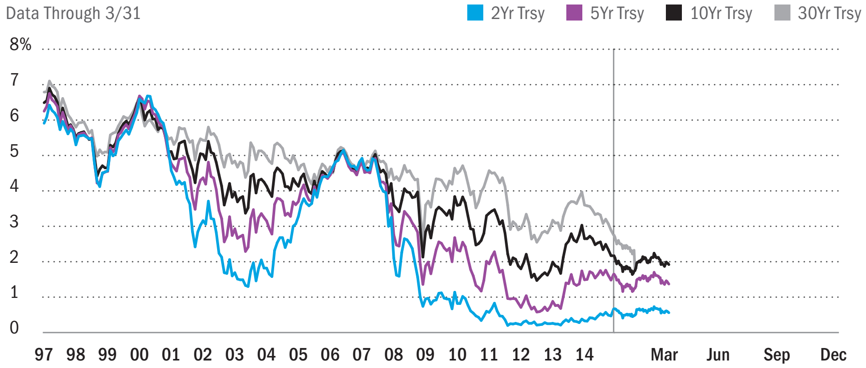


BofA Merrill Lynch Global Indices Option-adjusted Spreads (OAS), except 10-yr Swap which is a simple spread over the 10-yr Treasury rate.

U.S. Enters Post-Tapering Period

Since the end of QE in October 2014, 10-year Treasury yields remained low, even dropping below 2.0% in early 2015. But, yields have since risen to 2.25% in early 2Q as the market anticipates an FOMC rate hike. The FOMC has suggested that an increase in the federal funds target range is forthcoming, but it "…does not indicate that the Committee has decided on the timing of the initial increase." The increase in Treasury yields in early 2Q was accompanied by a spike in European and global sovereign bond yields. Yields on 10-year German bunds climbed 60 bps in an 8-day period as investors fled negative real yields. Japanese and Australian bond markets also slumped. Investor sensitivity and reaction to global bond and interest rate movements are another potential source of volatility in 2015.

U.S. Treasury Rates



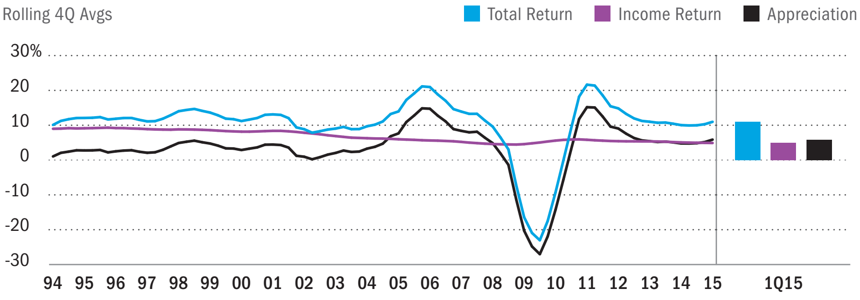
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Apartment Market Overview

Apartment Properties Trail Yet Again

Apartment total return was the weakest of the four major property types for the fourth consecutive quarter, but nonetheless remained in the double-digits at 11.0% for the four-quarter period ending March 2015 vs. 10.3% as of 4Q14. Income returns contributed 4.9%, while appreciation returns increased to 5.9% from 5.2% previously. The uptick in appreciation is noteworthy given the moderation in rent growth in many markets due to new supply.

NCREIF Apartment Returns

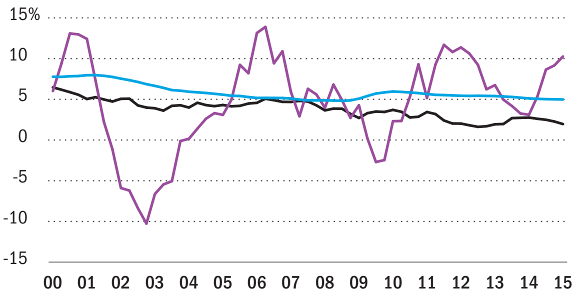


Apartment Cap Rates Remain Stable

Cap rates implied by NPI apartment valuations averaged 5.0% for the four quarters ending March 2015, the same value as in the prior three periods. Stabilization of cap rates is not surprising given the strong value growth of recent years combined with new supply. According to RCA, transaction cap rates averaged 6.0% nationally, but mid- and high-rise product and properties in the largest apartment markets averaged 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.

Apartment Property Pricing and Treasury

Rolling 4Q Avg, Except Treasury – Qtrly Avg of Daily Rates

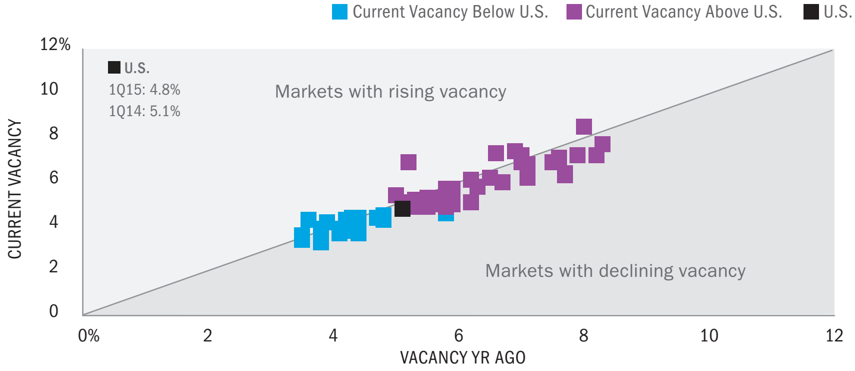


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	6.7	4.4	4.5
2005–15	5.3	6.1	3.4
Mar–14	5.1	3.1	2.8
Dec–14	5.0	9.2	2.3
Mar–15	5.0	10.3	2.0

Apartment Markets Maintain Strength

Apartment market conditions remained tight with the national vacancy rate averaging 4.8% in 1Q15 vs. 5.1% in 1Q14. (Year-over-year comparisons are necessary to account for seasonal leasing patterns.) The first quarter is not a prime leasing period, so the improvement is indicative of still healthy market fundamentals. Vacancy rates declined in 48 of the 62 markets tracked by CBRE-EA. While additional supply will be delivered in 2015, markets remain tight, with vacancy rates at or below 5% in 31 markets and at or below 4.5% in 23 markets.

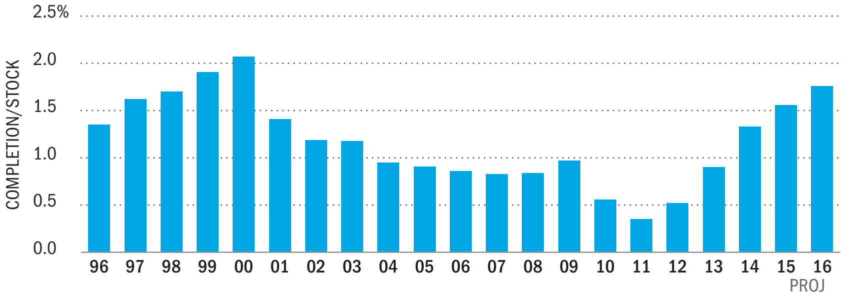
Apartment Vacancy Rate Dispersion



More Supply Coming

New product is being delivered in both high- and low-barrier-to-entry markets; construction nationally is expected to total almost 250,000 units in 2015. Construction is not expected to peak until 2016 at 250,000 units, and only modest declines are expected in 2017 and 2018. Minimal vacancy, 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.

Apartment Construction



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

Industrial Market Overview

Industrial Sector Retains the Lead

Industrial total return was the highest among the four major property sectors for the second straight quarter. Total returns averaged 14.2% for the four-quarter period ending March 2015, up from 13.4% in the prior quarter. Income returns were steady at 5.7%, but appreciation returns jumped for the second straight quarter to 8.1% from 7.3% previously. The improvement in returns came despite a 1.0% decline in industrial production during 1Q15, which was the first quarterly decline since 2Q09 and was largely due to a 60% decline in oil and gas well servicing and drilling.

Cap Rates Dip While NOI Grows Strongly

Valuation cap rates inched down to 5.7% for the four quarters ending March 2015 vs. 5.8% previously. Transaction cap rates reported by RCA averaged 7.0%, but cap rates for top properties in major industrial markets were 5.5% or less. Industrial NOI grew 6.0% on a four-quarter rolling basis, following a 5.1% gain previously. The continued strength in NOI growth is reflective of improving market fundamentals and the rollover of leases signed at the 2009 market trough.

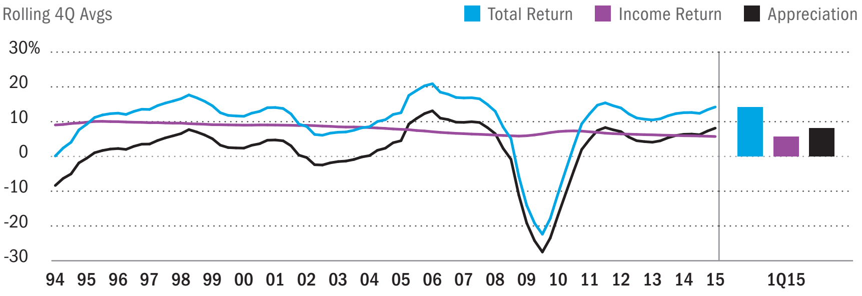
Industrial Availability Tightens Further

The U.S. industrial availability rate fell to 10.1% vs. 10.3% in 4Q14, the nineteenth consecutive quarterly decline. Year-over-year, the decline was 100 bps. Market gains were broad-based, with the availability rate declining in 52 of the 59 markets tracked by CBRE-EA. Major markets with the lowest availability rates were concentrated in the West and included LA, Orange County, Seattle, Denver and Riverside. Nationally, absorption totaled 50 million sf in 1Q15; new construction totaled 29 million sf.

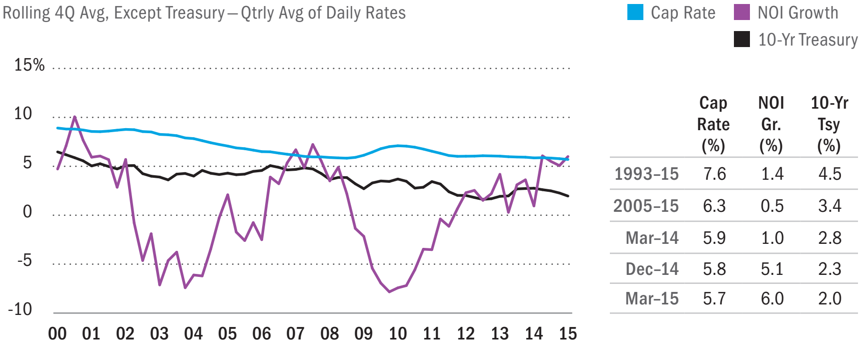
Construction on the Rise

Declining vacancies, modest 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 and pent-up demand from the lack of construction from 2010 to 2012. Speculative construction is on the rise, but overall, supply is expected to remain below peak levels of the late-1990s and mid-2000s.

NCREIF Industrial Returns

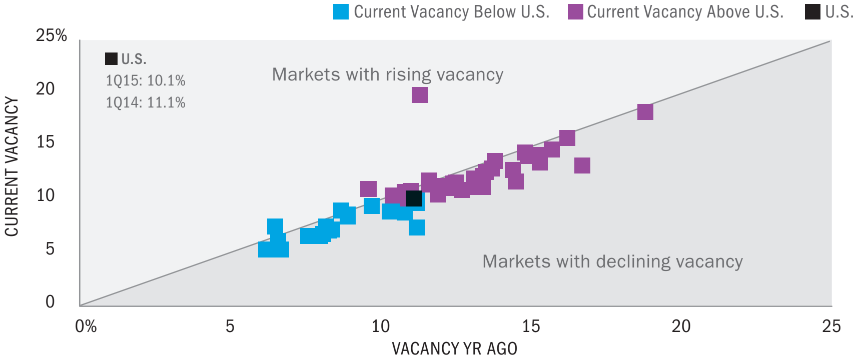


Industrial Property Pricing and Treasury

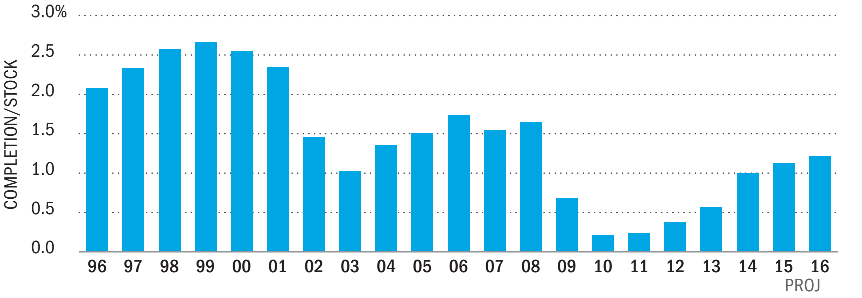


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.6	1.4	4.5
2005–15	6.3	0.5	3.4
Mar–14	5.9	1.0	2.8
Dec–14	5.8	5.1	2.3
Mar–15	5.7	6.0	2.0

Industrial Vacancy Rate Dispersion



Industrial Construction



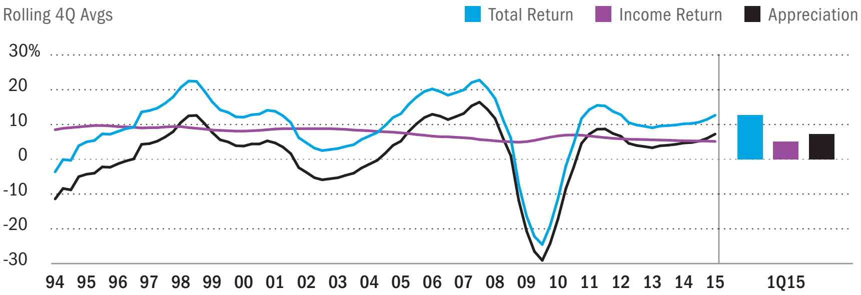
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Office Market Overview

Office Sector Returns Jump

The office sector's total return jumped to 12.7% for the four-quarter period ending March 2015 vs. 11.5% previously. Income returns were steady at 5.1%, but capital returns climbed to 7.3% from 6.1% previously. The office sector has been the slowest of the four major property types to recover, but it is gaining momentum as absorption has exceeded construction by a 2:1 margin over the past year.

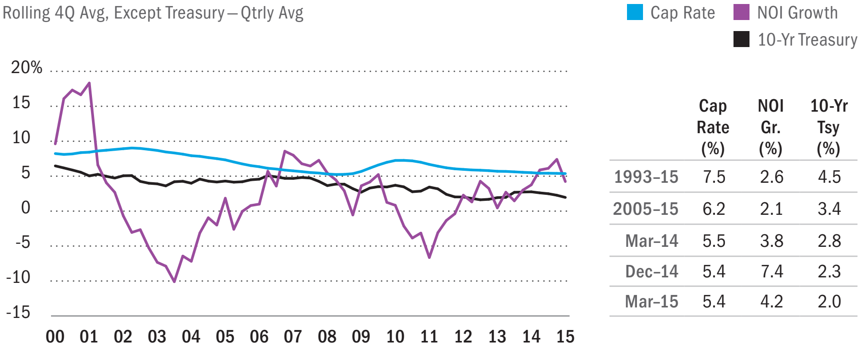
NCREIF Office Returns



Cap Rates Stable While NOI Grows

Office cap rates implied by NPI valuations have inched down over the past two years, but held steady at 5.4% in 1Q15. According to RCA, transaction cap rates in 1Q15 averaged 6.5% nationally, declining 30 basis points vs. 1Q14. An approximate 100 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 on a four-quarter rolling basis slipped to 4.2% in 1Q15 from 7.4% previously, but is likely to remain healthy in the coming quarters.

Office Property Pricing and Treasury

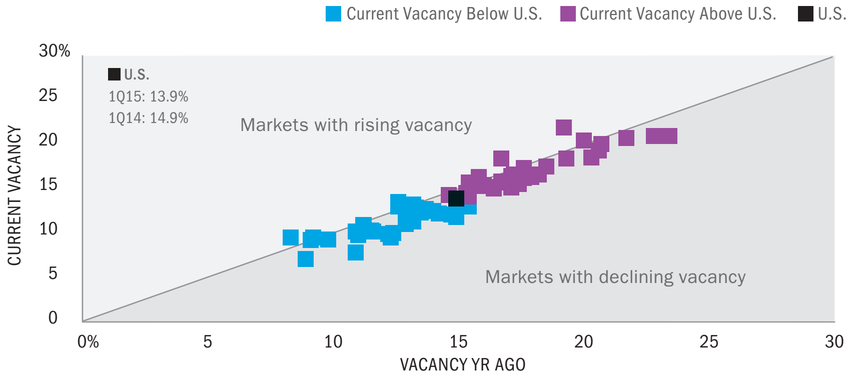


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
1993–15	7.5	2.6	4.5
2005–15	6.2	2.1	3.4
Mar–14	5.5	3.8	2.8
Dec–14	5.4	7.4	2.3
Mar–15	5.4	4.2	2.0

Office Fundamentals Unchanged

The national office vacancy rate remained at 13.9% in 1Q15, but the year-over-year decline was 100 bps. Headwinds prevail – including a growing preference for open floor layouts which reduce average space per employee – 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 63 markets tracked by CBRE-EA.

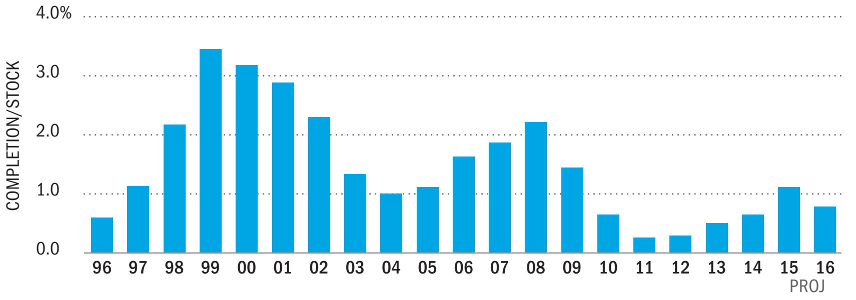
Office Vacancy Rate Dispersion



Office Pipeline Modest but Growing

With its long lead time, office construction is highly cyclical. Market conditions and rents do not yet support new construction in many markets. Exceptions include San Francisco, Houston and Dallas where employment and rent growth have been strong. Functional obsolescence of older buildings will likely drive demand for new construction in the future as technologically-efficient, state-of-the-art space provides operational benefits and lower costs for tenants and investors. Nonetheless, only modest construction is expected in 2015 and 2016.

Office Construction



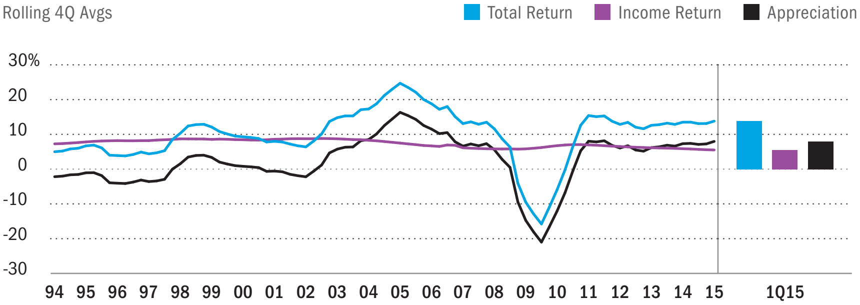
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Retail Market Overview

Retail Returns Improve

The retail sector's total return stayed in second place among the four major property sectors for the second straight quarter. Total return averaged 13.8% for the four-quarter period ending March 2015 vs. 13.1% previously. Income returns were largely unchanged from the prior quarter at 5.6%, while capital returns increased to 8.0% from 7.2% previously.

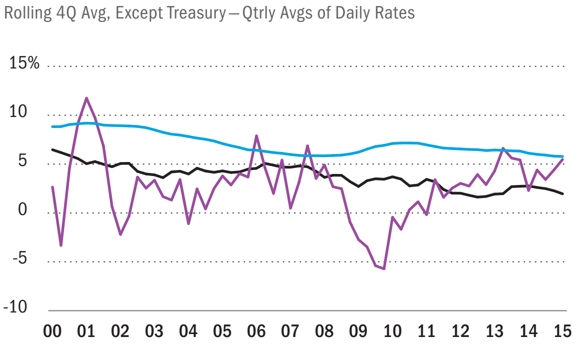
NCREIF Retail Returns



Retail Cap Rates Stabilizing

Retail cap rates, as implied by NPI property valuations, were unchanged at 5.8% for the four-quarter period ending March 2015. According to RCA, retail transaction cap rates averaged 6.4% in 1Q, down 40 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 (%)
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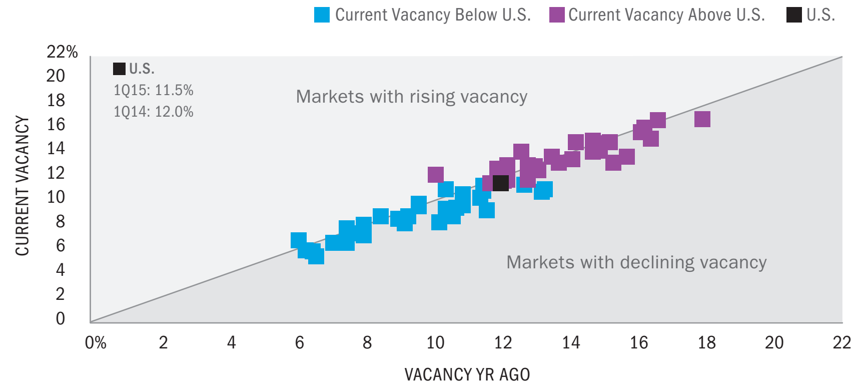
Mar–15	5.8	5.5	2.0

Retail Fundamentals Still Soft

Availability rates in neighborhood and community centers inched up to 11.5% in 1Q15 vs. 11.4% in 4Q14. Retail sales excluding motor vehicles and parts increased 0.9% year-over-year, but a 23% drop in sales at gas stations caused by lower oil prices skewed results. Sales in furniture and furnishings (4.9% growth), apparel and accessories (2.7% growth), and sporting goods, hobbies and books (5.3% growth) showed strength. While vacancy rates in community and neighborhood centers remain elevated, they declined in 50 of the 63 markets tracked by CBRE-EA. Ongoing growth in retail sales coupled with minimal construction should benefit retail markets in 2015.

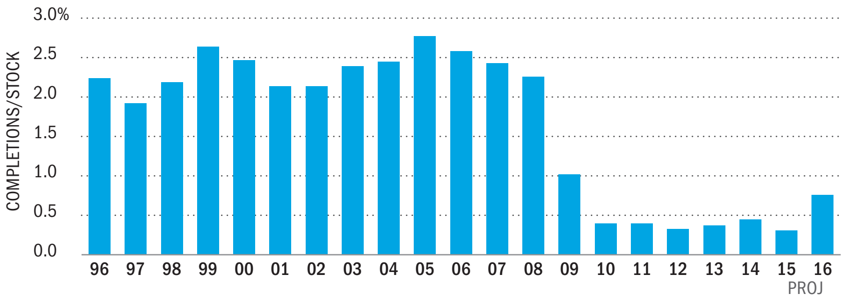
Retail Vacancy Rate Dispersion



Retail Construction at Historic Lows

Neighborhood and community center construction is expected to total just 10 million sf in 2015. Completions should remain subdued through 2016, but increase modestly in subsequent years. Still, a meaningful increase is not expected until 2018 or 2019. 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

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

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Data is as of 3/31/2015 unless noted otherwise.

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