TIAA-CREF Asset Management

Real Estate Quarterly Highlights

Second Quarter 2014

TIAA CREF

What's Inside

Real Estate Investment Quarterly Highlights features overviews of the following:

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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. Even though investors have been worrying about rising interest rates, 10-year Treasury yields generally followed a downward trend in 2Q, ending the quarter slightly over 2.5%. As of the end of July, the yield remained essentially unchanged. Tapering is on pace to be completed prior to year end, but the fed funds target rate is not expected to rise until mid-2015. The current real estate cap rate spread remains greater than its long-term historical average; this should offer comfort to real estate investors.

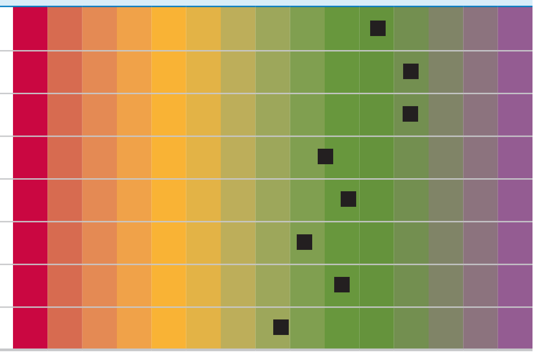
Labor Market

Employment and Unemployment Rate

Employment growth drives demand for space. Employment grew by a monthly average of almost 280,000 jobs in 2Q, a sizeable increase from first quarter's average of 190,000 jobs. Gains were broad-based, and even the government sector contributed to growth. Solid additions continued into 3Q, with July marking the sixth straight month of gains in excess of 200,000 jobs. The Blue Chip consensus expects monthly employment to grow by an average of over 210,000 jobs in the second half of 2014. These healthy levels of employment growth bode well for real estate demand.

Leading Indicators of U.S. Commercial Real Estate Performance — 2Q2014

Indicators	Position	Stall … Overheat
Interest rates	Historically low making real estate investment attractive	
Investor risk appetite	Spreads are tightening but not to last cycle peak	
Debt for investors	Commercial mortgages available with easing standards	
Debt for construction	Easing but not yet abundant	
Employment growth	Improving to absorb labor force growth	
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 Research

Debt Availability

Construction and Investor Financing

Debt flows affect the pace of new construction and the pace of transactions for existing properties. Solid total returns, strong capital flows and expanding debt availability have created an environment that is ripe for new construction. Demand for construction financing has increased and standards have somewhat eased, 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 disconnects from demand. There are early indications of moderate credit quality erosion in CMBS lending.

CRE Fundamentals

Vacancy Rates and Rent Growth

CRE market fundamentals determine net operating income growth prospects. Despite an increase in construction, fundamentals continued to improve modestly across all sectors in 2Q. Prospects are most favorable for office, industrial and retail due to moderate demand growth and minimal construction. Multifamily completions are expected to match their long-term historical norms in the near term, but forecasts show that new supply is expected to be readily absorbed and that vacancy rates and rent growth should remain healthy.

Conclusions

U.S. commercial real estate investment performance outlook: The U.S. real estate market has been shifting gears.

The recent flattening of real estate total returns indicates that the cycle is maturing. The current recovery is now in its 18th quarter; the last cycle's recovery phase was 20 quarters. Naturally, investors want to know if there is more upside ahead. The answer depends on the relative strength of the drivers of investment performance vs. the weight of "accumulating imbalances."

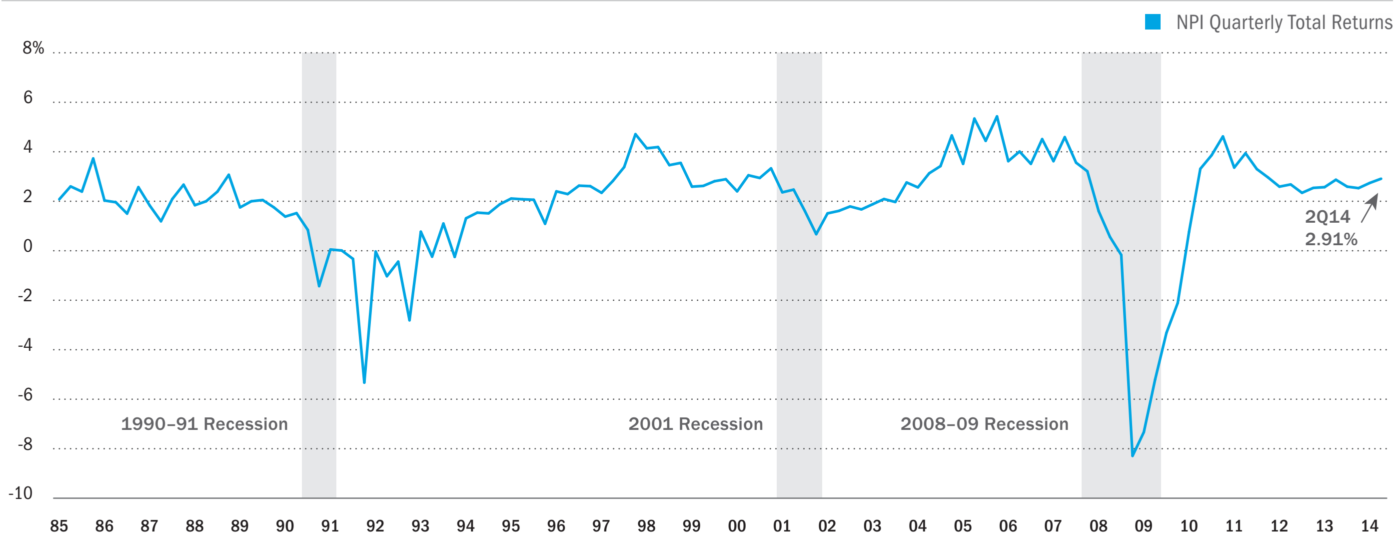
More than four years into the recovery, the annual performance benefit from cap rate compression is waning. Today, investors worry that rising interest rates will result in increasing cap rates. While there is a rough positive relationship between the two variables, cap rates do not change in lockstep with Treasury yields. Cap rates are influenced by a wider array of variables including net operating income (NOI) growth, interest rates, real estate fundamentals, capital flows and investor risk appetite. The current spread between cap rates and 10-year Treasury yields is approximately 360 basis points (bps); the long-term historical spread has been roughly 300 bps. The extra spread has the potential to absorb further increases in Treasury yields before investor demand and pricing are affected.

With the strength of cap rate compression diminishing, NOI growth is expected to become the primary driver of property investment performance. But, the NOI growth experience during the recovery has not been uniform across the property types. While the apartment and retail sectors have experienced solid NOI growth, industrial and office have been laggards. However, office and industrial fundamentals are improving, and their supply pipelines remain in check. Our leading indicators of overall real estate performance indicate that conditions are largely supportive of continued solid NOI growth.

Several issues comprise accumulating imbalances including a U.S. monetary policy that is at full throttle and inching toward "normalization," a glut of global capital chasing yield, global growth uncertainties and hints of the seeds of "secular stagnation" (a situation where an economy cannot reach full employment and financial stability without unconventional policy support). Upheavals in emerging markets could repatriate additional investment to the U.S. and bolster investor demand for U.S. real estate. Despite concerns regarding accumulating imbalances and geopolitical tensions, the consensus among forecasters is that the U.S. economy will continue to gain traction and strength in the coming years.

Stronger economic growth is expected in 2014 and should provide the backdrop for commercial real estate to deliver consistent returns in the near term. The PREA Consensus Forecast Survey expects real estate performance to move closer to its long-term historical average; it anticipates a total return of 9.5% in 2014. Cap rate spreads may ultimately face pressure from an increase in interest rates, but the Fed is not expected to raise the fed funds target rate until 2015. Construction financing has been spurred by increased bank lending and more aggressive CMBS activity. Economic and market fundamentals continue to support a favorable view of real estate prospects in the quarters ahead, but the rising sea level in the form of increasing equity and debt flows bears watching closely.

Economic and Real Estate Cycles



U.S. Real Estate Performance Overview

Total Return Remains Compelling
The NCREIF Property Index (NPI) ended the four quarters through 2Q14 with an 11.2% total return, matching the prior four-quarter period. Income and capital returns were both 5.5% and again similar to the previous quarter. Annualized total returns have remained at ~11% over the past five quarters; in sync with the steady improvement in the U.S. economy. Recent data show continued improvement in economic conditions which should provide the backdrop for commercial real estate to deliver solid returns over the balance of 2014.

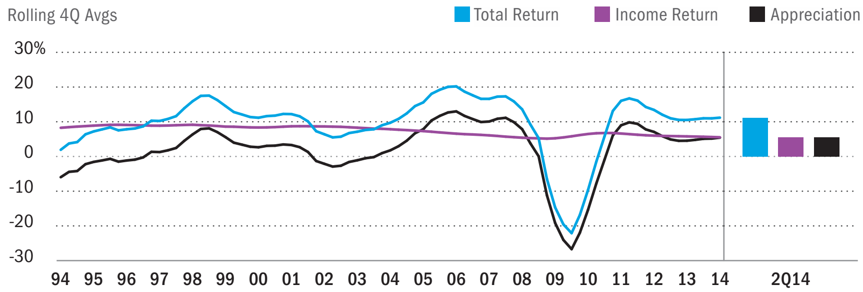
Valuation Cap Rates Stabilizing
Cap rates implied by NCREIF-NPI property valuations averaged 5.63% for the four quarters ending June 2014 vs. 5.67% previously. The modest 4 bps decline and the consistent results suggest that valuation cap rates are bottoming out. Appraiser concern about the prospect of rising interest rates may be a contributing factor, but the yield on the 10-year Treasury has remained at +2.5%, after starting the year at roughly 3%. Geopolitical concerns may continue to support low yields despite Fed actions. In the interim, real estate's ~360 bps cap rate spread over 10-year Treasury yields remains attractive compared to the 300 bps historical average. Real estate also looks attractive compared to other asset classes.

Solid Returns in Virtually All Markets
For the second straight quarter, positive returns were recorded in all NCREIF markets except Milwaukee. In addition, 64 of the 105 markets reported double digit returns. For the fifth consecutive quarter, the South posted the strongest performance at 13.1%, followed by the West at 12.5%. San Jose, Houston, Miami, Denver and San Francisco were major market leaders, while Washington, D.C. and Bethesda continued to be major market laggards.

Transaction Activity Remains Healthy
Commercial property sales (excl. hotels and land) totaled \$80 billion in the 2nd quarter which was virtually identical to 1st quarter's \$79 billion. Through the first half of 2014, sales were up 20%. Sales increased for all property types except retail which fell due to fewer mall sales. Gateway markets — Manhattan, L.A., San Francisco, Boston and D.C. — were office sales leaders while Chicago, L.A., Riverside and Dallas were industrial sales leaders. Apartment investors also focused on major markets, including L.A., Manhattan, Dallas, Houston and Seattle.

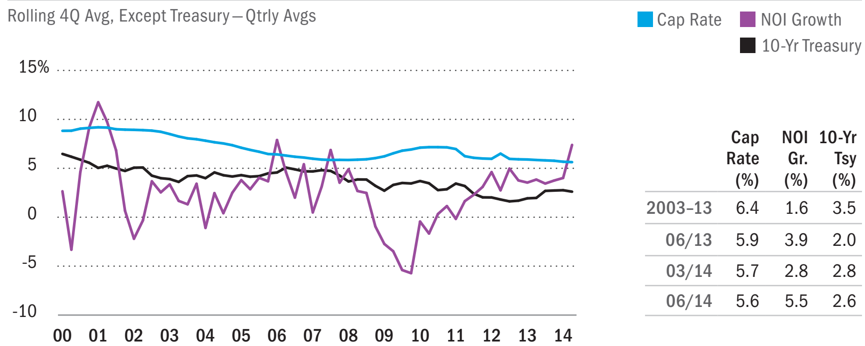
NCREIF Returns for All Property Types

Rolling 4Q Avgs



Pricing for All Property Types

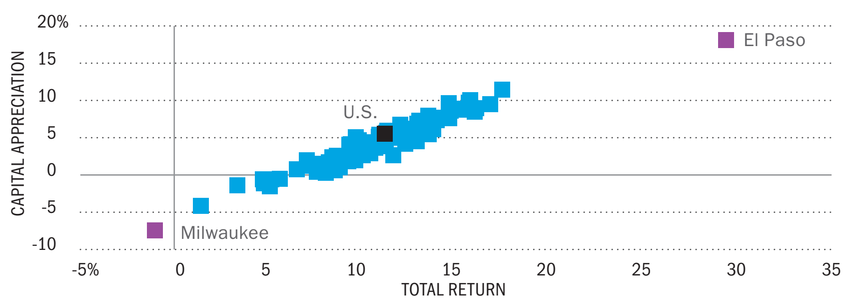
Rolling 4Q Avg, Except Treasury — Qtrly Avgs



	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
2003–13	6.4	1.6	3.5
06/13	5.9	3.9	2.0
03/14	5.7	2.8	2.8
06/14	5.6	5.5	2.6

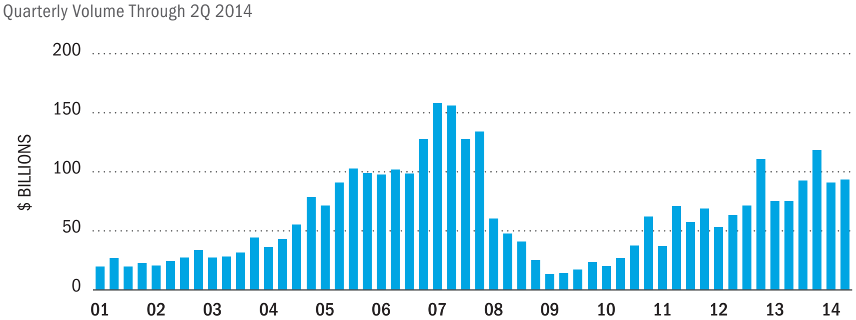
NCREIF MSA Dispersion

Rolling 4 Quarters Ending 6/2014



RCA Transactions

Quarterly Volume Through 2Q 2014



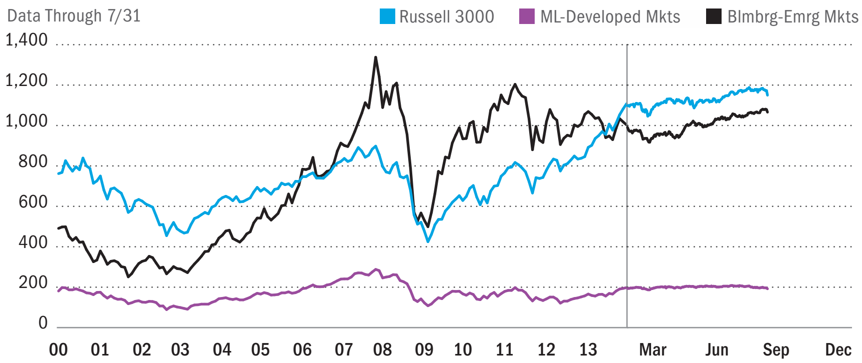
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Financial Markets Overview

Equities Playing Into the Wind

Financial markets are facing a number of headwinds including violence in the Middle East, conflict in the Ukraine, Argentina's credit default, and concerns over the timing and pace of U.S. rate hikes. The Russell 3000 Index shows that U.S. stocks gained 4% in the second quarter then lost 2% in July. The decline was attributable to investors "de-risking" their portfolios over fears that the Fed may accelerate its tightening timeline. Developed markets, excluding the U.S., were flat in the second quarter, but declined 6% in July as investors worried about the potential impact of new sanctions against Russia. In contrast, equities in emerging markets generated positive momentum, advancing 6% in the second quarter and adding another 1% in July. These gains were a reversal from last year's experience and reflect a renewed search for return as low Treasury rates persist.

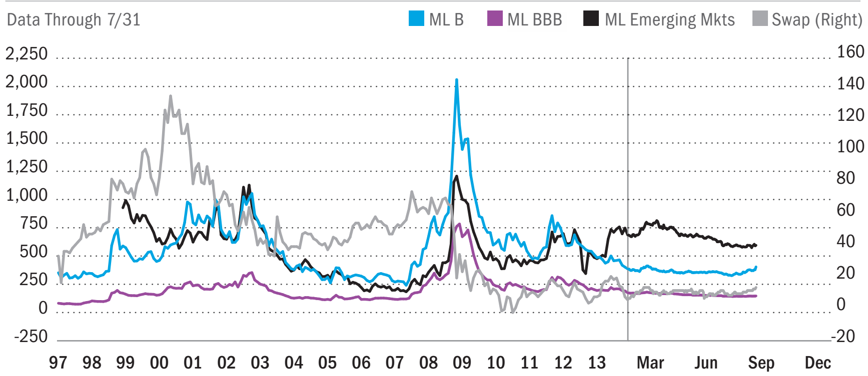
U.S. vs. Foreign Stocks



Shifting Credit Spread Strategies

Credit spreads continued to tighten in the second quarter, but followed different paths through July. High-yield B-quality corporate spreads modestly tightened in the second quarter to 349 bps from 355 bps at the end of the first quarter, but jumped to 404 basis points by the end of July due to heavy withdrawals reflecting valuation concerns. Investment grade BBB's tightened to 144 bps from 161 bps at the end of first quarter. BBB spreads essentially held steady through July, placing them at about their mid-2007 levels. Emerging market spreads tightened from 696 basis points at the end of the first quarter to 599 basis points in the second, and they effectively maintained that level through July. Investor appetite for emerging market paper appears to be increasing despite geopolitical tension.

Credit Spreads

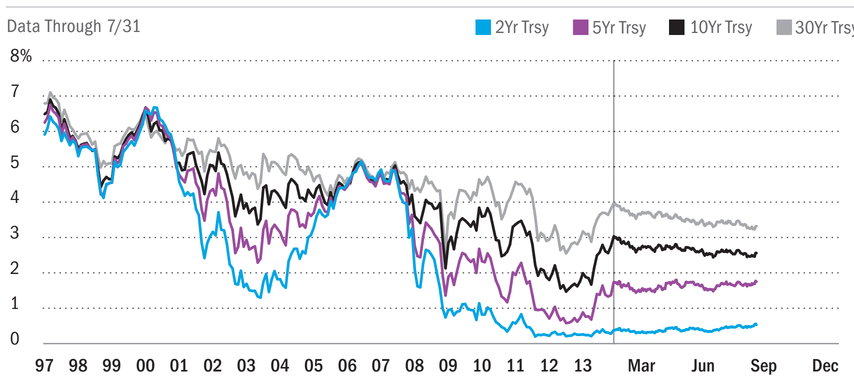


* Merrill Lynch Global Indices Option-Adjusted Spreads, except 10-yr Swap which is a simple spread over the 10-yr Treasury rate.

The Final Phase of U.S. Tapering is Near

Following its July meeting, the FOMC continued its gradual withdrawal of stimulus by reducing its monthly bond purchases by another $10 bil. For August, the Fed will purchase $25 bil in Treasuries and MBS; it is expected to pare down purchases to zero before the end of this year, likely October, bringing quantitative easing to an end. The FOMC's policy statement reaffirmed that the fed funds target rate would remain low for a considerable time. While investors worry about rising Treasury rates, they have not yet materialized. The 10-yr Treasury is down from 2.72% at the end of the first quarter to 2.56% at the end of July; the 30-yr is down from 3.56% to 3.32%. These declines point to demand for Treasuries that is replacing the Fed purchases and more. Investors are therefore well-advised to watch capital flows carefully.

U.S. Treasury Rates

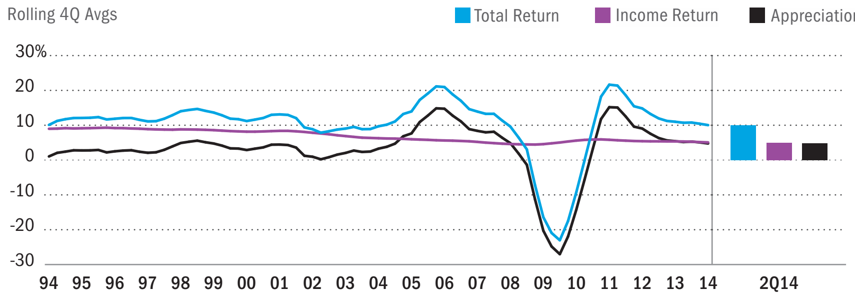


Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Apartment Market Overview

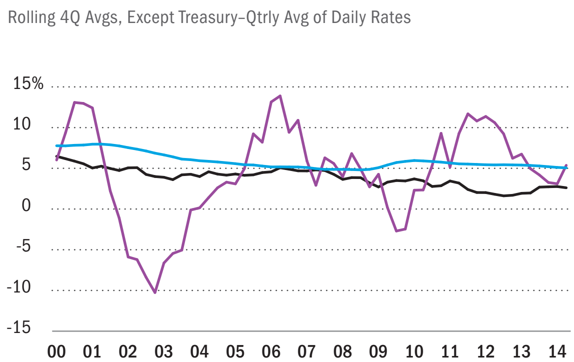
Apartment Properties Stay in Fourth Place
Apartment properties remained in fourth place among the major property types for the second consecutive quarter. Total return for the four-quarter period ending June 2014 was 9.9%, the only property type with below double-digit returns vs. 10.0% previously. Income returns were stable at 5.0%, while the appreciation component dipped once again to 4.7%. Stabilization of income returns and the dip in appreciation returns are reflective of the moderation in rent growth resulting from new supply in many markets.

NCREIF Apartment Returns



Apartment Cap Rates Bottoming Out
Cap rates implied in NPI apartment valuations averaged 5.1% for the four quarters ended June 2014; same as the prior 4-quarter period. With valuation cap rates having declined for 16 consecutive quarters and new supply hitting the market, valuation cap rate stabilization is not surprising. However, per RCA, transaction cap rates compressed in the first half of the year, with properties in major metros now garnering sub-5% caps. This has increased interest and activity in secondary and tertiary markets.

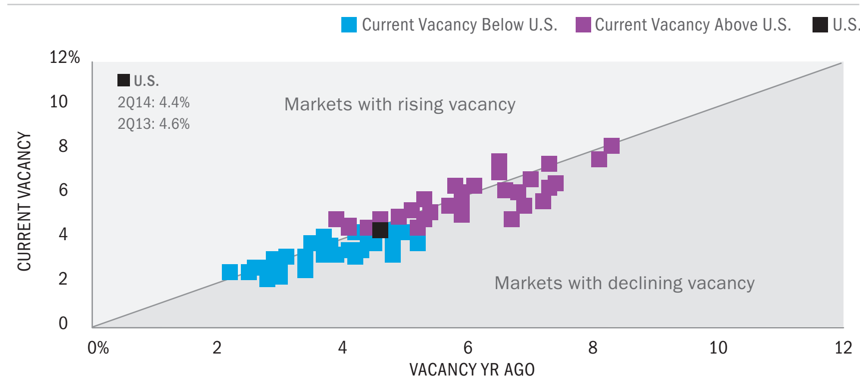
Apartment Property Pricing and Treasury



	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
2003–13	5.5	4.9	3.5
06/13	5.4	4.9	2.0
03/14	5.1	3.1	2.8
06/14	5.1	5.4	2.6

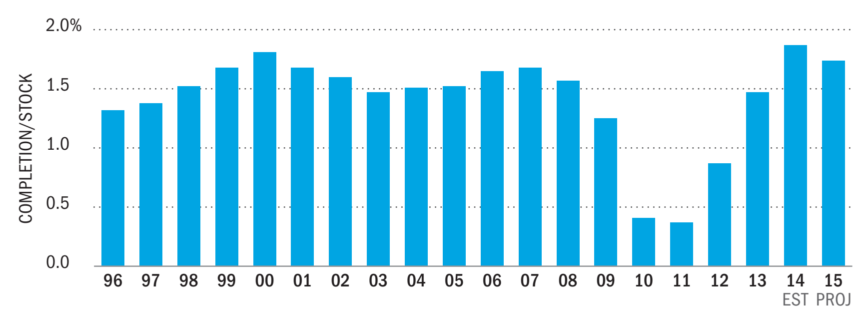
Apartment Markets Maintain Strength
Apartment market conditions remained tight with the national vacancy rate averaging 4.4% in 2Q14 vs. 4.6% in 2Q13. (Year-over-year comparisons are necessary to account for seasonal leasing patterns.) The second quarter is typically a prime leasing period, especially so this year, given weaker activity in 1Q14 due to weather. As in 1Q14, vacancy rates declined in 39 of the 63 markets tracked by CBRE-EA. While new supply is being delivered, markets are tight, with 42 having a vacancy rate of 5% or less and 26 having a vacancy rate of 4% or less. Minimal vacancies and demand generated by healthy job growth should provide a sufficient cushion for new supply in many markets.

Apartment Vacancy Rate Dispersion



Supply Hits the Market
New product is being delivered in both high- and low-barriers-to-entry markets, with several major markets expected to see record supply in 2014. A rebounding single-family market poses some risk, but the current move-out-to-buy rate nationally is only 15% vs. +20% in 2005. In addition, stronger job growth and growth of Gen Y will help absorb new units. Still, moderation in rent growth should be expected while new supply is being absorbed.

Apartment Construction

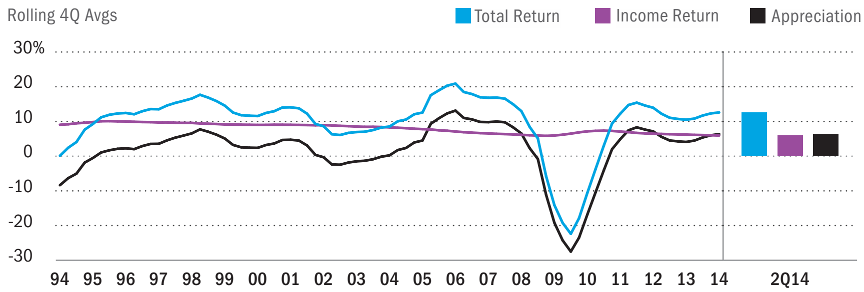


Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Industrial Market Overview

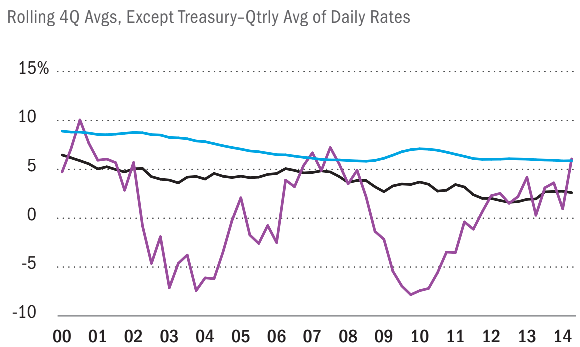
Industrial Sector Holds Second Place
Industrial property held onto second place among the major property sectors for the fourth straight quarter. Total returns averaged 12.6% for the four-quarter period ending June 2014, which was the same as the prior four quarters. Income returns and appreciation returns were both steady at 5.9% and 6.4%, respectively, for the second straight quarter. Market drivers include industrial production which grew at 5.5% in 2Q14, following a similarly strong 4.4% gain in 1Q14, and the largest quarterly increases since 2Q10.

NCREIF Industrial Returns



Cap Rates Steady while NOI Grows Strongly
Valuation cap rates remained steady at 5.9% for the four quarters ending June 2014 and have been at or close to 6.0% for the past twelve quarters. Transaction cap rates reported by RCA averaged 7.2%, but cap rates in top tier markets averaged 6% or less. NOI grew 6.1% on a four-quarter rolling basis, reflective of improving fundamentals and the rollover of leases signed at the 2009 market trough.

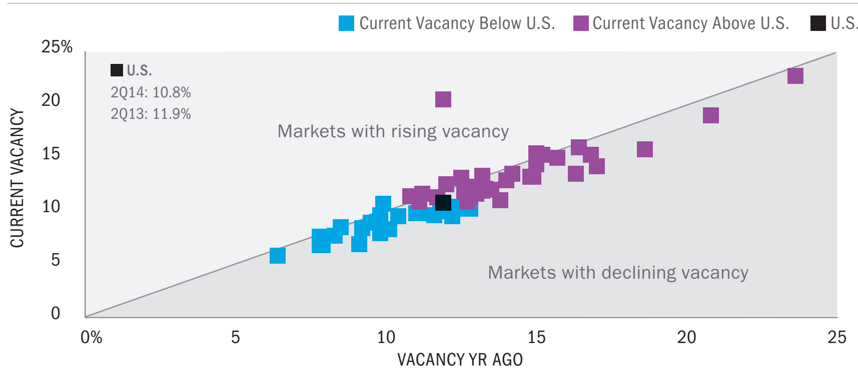
Industrial Property Pricing and Treasury



	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
2003–13	6.6	-0.7	3.5
06/13	6.0	0.3	2.0
03/14	5.9	1.0	2.8
06/14	5.9	6.1	2.6

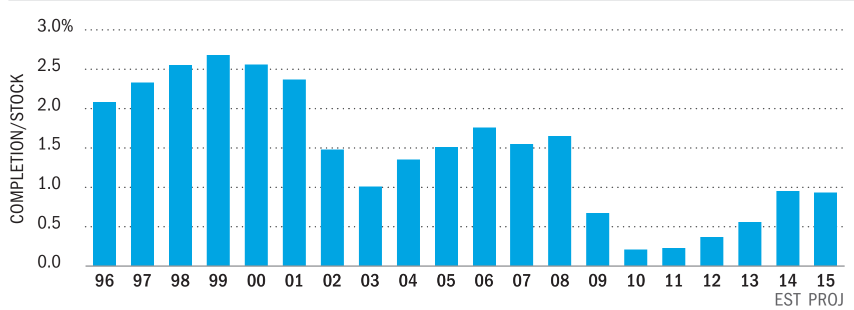
Industrial Availability Rate Drops Yet Again
The U.S. industrial availability rate fell to 10.8% vs. 11.1% in 1Q14, the twelfth consecutive quarterly decline. Year-over-year, the decline was almost 100 bps. Market gains were broad-based, with the availability rate declining in 49 of the 59 markets tracked by CBRE-EA. Major markets with the lowest availability rates were concentrated on the West Coast and included Los Angeles, Orange County, Seattle, Denver and Riverside. Nationally, absorption was almost double that of construction in the first half of 2014.

Industrial Vacancy Rate Dispersion



Construction Poised to Pick Up
A steady decline in vacancies coupled with modest rent growth and increasing acquisitions activity has spurred a pick-up in construction, with the biggest pipelines in Riverside, Dallas/Ft. Worth, and Chicago. A portion consists of build-to-suits due to a shortage of large blocks of space that meet tenant-specific needs. Spec construction is also increasing given improving fundamentals, strong demand for existing product, and an increase in construction lending.

Industrial Construction



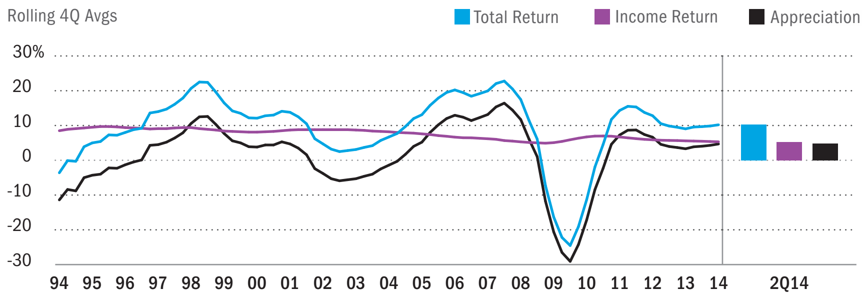
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Office Market Overview

Office Sector Maintains Third Position

The office sector retained 3rd position for the second consecutive quarter after being mired in last place for the prior eight quarters. Total returns were 10.3% for the four-quarter period ending June 2014 vs. 10.2% for the prior period. As with other property types, income and capital returns were both steady at 5.3% and 4.8%, respectively. The office sector has been the slowest to recover, but appears to be gaining steam as total returns have now increased for five consecutive quarters.

NCREIF Office Returns



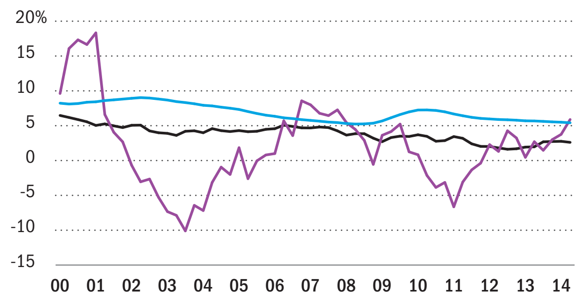
Cap Rates Steady while NOI Growth Surges

Office cap rates implied by NPI valuations were steady at 5.4% vs. 5.5% previously. However, valuation cap rates have dropped 25 bps over the last year and 50 bps over the past 2 years. Investor interest is increasing with office sales up 30% in the first half of 2014. Per RCA, transaction cap rates averaged just under 7%, with big variations between CBD (5.8%) and suburban (7.3%) markets, as well as major and non-major markets. NOI growth is accelerating with a 4-quarter rolling average of 5.9% vs. 3.8% previously.

Office Property Pricing and Treasury

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

Cap Rate NOI Growth 10-Yr Treasury

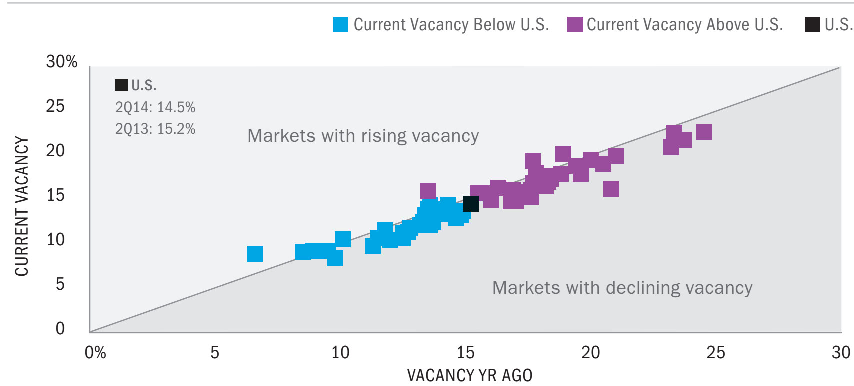


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
2003–13	6.5	0.6	3.5
06/13	5.7	2.7	2.0
03/14	5.5	3.8	2.8
06/14	5.4	5.9	2.6

Office Fundamentals Improve Further

The national office vacancy rate dipped to 14.5% in 2Q14 vs. 14.8% in 1Q14. Year-over-year, the decline was 70 bps. Though headwinds prevail — including open floor layouts which reduce average space per employee — growth in professional and business services, tech, and entertainment has been a source of demand in many markets. There was another strong showing at the market level with vacancy rates declining in 50 of the 63 markets tracked by CBRE-EA.

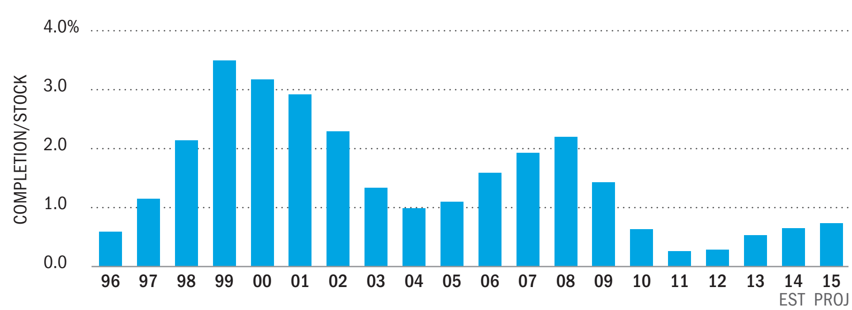
Office Vacancy Rate Dispersion



Office Pipeline Still Modest but Rising

With its long lead time, office construction is highly cyclical. Market conditions and rents still do not warrant new construction in most markets. Exceptions include San Francisco, Houston, and Dallas where employment growth and rent growth have been strong. Functional obsolescence of older buildings will drive demand in the future as technologically efficient, state-of-the-art space can provide operational efficiencies and lower costs. However, significant pickup in construction is not expected nationally until 2017–2018.

Office Construction



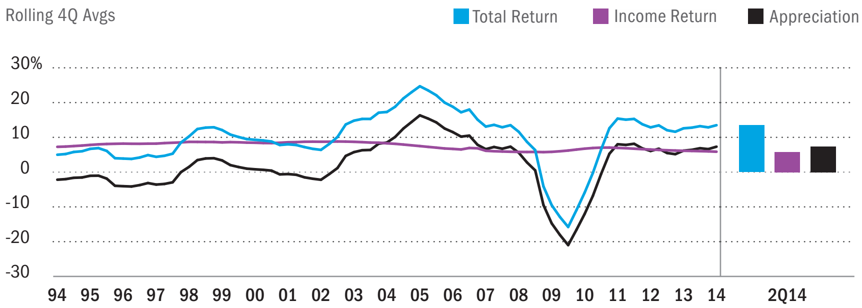
Sources: CBRE-Econometric Advisors, NCREIF, RCA, Bloomberg and TIAA Research

Retail Market Overview

Retail Retains Pole Position

The retail sector generated the highest total returns of the major property types for the eighth consecutive quarter. Total returns averaged 13.5% for the four-quarter period ending June 2014, identical to the prior four quarters. As with other property types, both income and capital returns were unchanged from the prior quarter at 5.8% and 7.4%, respectively.

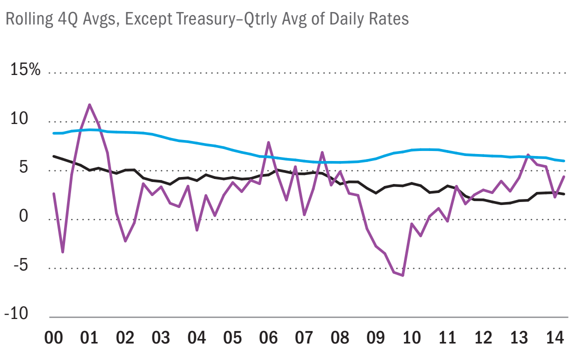
NCREIF Retail Returns



Retail Cap Rates Bottoming Out

Retail cap rates as implied by NPI property valuations inched down to 6.0% for the four-quarter period ending June 2014 vs. 6.1% previously. Transaction cap rates were once again largely unchanged at 7% in 2Q14, according to RCA, but there was significant variation between property sub-types and markets. High quality property is in especially strong demand which has driven cap rates for such properties to the mid- to low-4% range.

Retail Property Pricing and Treasury

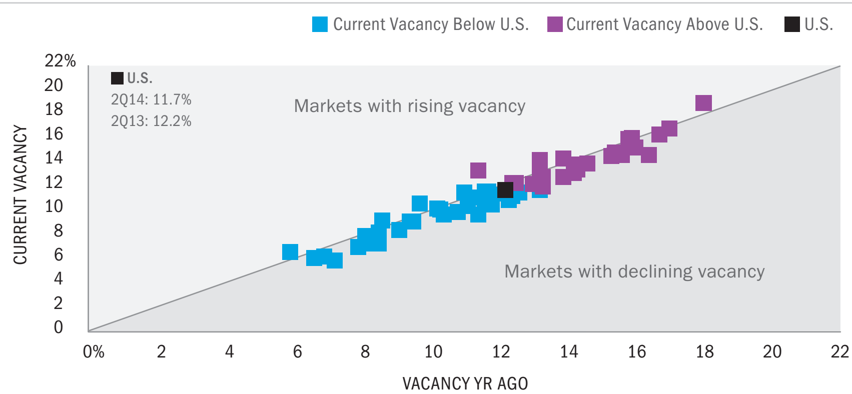


	Cap Rate (%)	NOI Gr. (%)	10-Yr Tsy (%)
2003–13	6.7	2.2	3.5
06/13	6.4	6.6	2.0
03/14	6.1	2.3	2.8
06/14	6.0	4.4	2.6

Retail Fundamentals Soft but Improving

Availability rates in neighborhood and community centers declined to 11.7% in 2Q14 vs. 11.9% in 1Q14. Retail sales excl. motor vehicles and parts were up just 1.8% vs. a weather-weakened 1Q14, but up 3.5% vs. 2Q13. However, spending on building materials and home furnishings was stronger than for apparel and clothing and general merchandise. While mall and lifestyle segments are stronger, strip conditions are improving. Availability rates remain high, but they declined in 50 of the 63 markets tracked by CBRE-EA. The 2.5% increase in consumer spending in 2Q14 coupled with recent employment growth bode well for retail markets in the second half of 2014.

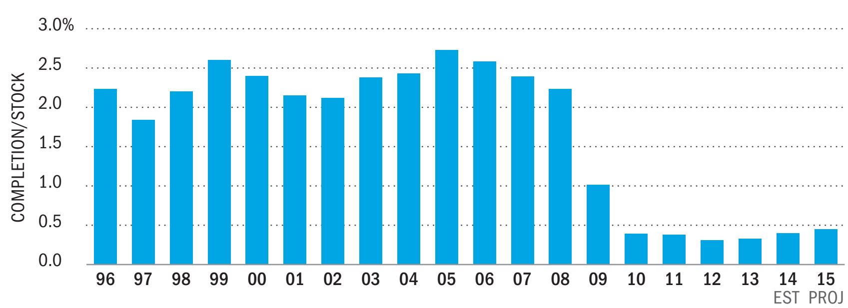
Retail Vacancy Rate Dispersion



Retail Construction Mired at Historic Lows

After falling to just 10 msf in 2013, neighborhood and community center construction is expected to total just 11.6 msf in 2014. Completions will move slowly higher in subsequent years, but a significant pick-up is not expected until 2017–2018. 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. Still, a lack of construction coupled with labor market improvements should benefit retail market fundamentals over the short and longer term.

Retail Construction



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

Real Estate Investment Quarterly Highlights: Second Quarter 2014 is prepared by TIAA-CREF Asset Management and represents the views of TIAA-CREF's Global Real Estate Group as of August 2014. 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 6/30/2014 unless noted otherwise.

Real estate investing risks include fluctuations in property values, higher expenses or lower income than expected, higher interest rates which affect leveraged investments, and potential environmental problems and liability.

Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

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