nuveen
REAL ESTATE

Q3

Think
U.S. cities

Trends and tactics
Q3 2019 outlook

Tomorrow's view

Continued growth but trade risks are rising

The U.S. economy grew at an annualized rate of 3.1% during Q1 2019 and is on track to grow around 2.9% in Q2 2019.[1] We expect GDP growth to slow in the 2nd half of 2019 as the effects of the fiscal stimulus and tax cuts fade and given the U.S.-China tariffs. We expect the U.S. economy to grow between 2.6% and 2.9% in 2019, generating continued demand for real estate. Trade, consumer spending and an accommodative Federal Reserve are and will continue to be key drivers of economic growth. The U.S.-China tariffs are a key risk to our economic outlook should an escalation of these tariffs begin to hinder growth.

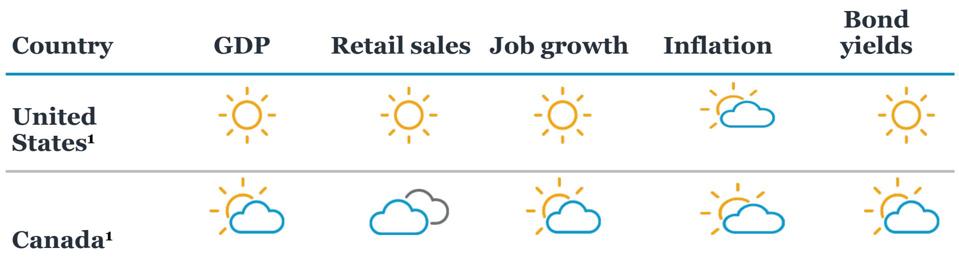
During the May 2019 Federal Open Market Committee meeting, the Federal Reserve kept the federal funds rate steady. The federal fund futures market is pricing in a 99.3% chance that the FOMC will cut rates by the end of 2019. While this economic cycle is one of the longest on record, the consensus raised the likelihood of a recession this year to 30%.[2]

Given this backdrop, we expect the U.S. real estate cycle to last at least another year if not longer as long as economic growth continues.

Economic and trade policy uncertainty in the U.S. will continue to define Canada's economic growth.[2] Canada's economy is expected to grow below the trend this year. The Canadian housing market should continue to strengthen due to restrained rate hikes, record-low unemployment rate and strengthening consumer sentiment.

U.S. real estate prices rose 1.6% in the 12 months ending May 2019, a modest increase relative to the past several years.[3] The NFI-ODCE saw a total return of 6.5% net of fees for the year ending Q1 2019. NOI grew 3.9% during this time period.[4] Given the maturity of this real estate cycle, we expect NOI growth to generate the majority of U.S. real estate total returns in 2019.

Fig. 1: Current economic health



Notes: Weather icons constitute projected performance relative to past trends (i.e. sun constitutes more favorable outlook relative to previous quarters/years). Bond yields are illustrative of whether they are supportive of real estate pricing.

Sources: [1] U.S. Bureau of Economic Analysis [2] Bloomberg, Q2 2019; [3] Green Street Advisors, Q2 2019; [4] NCREIF, Q1 2019

Tomorrow's view

Continued economic growth in 2019

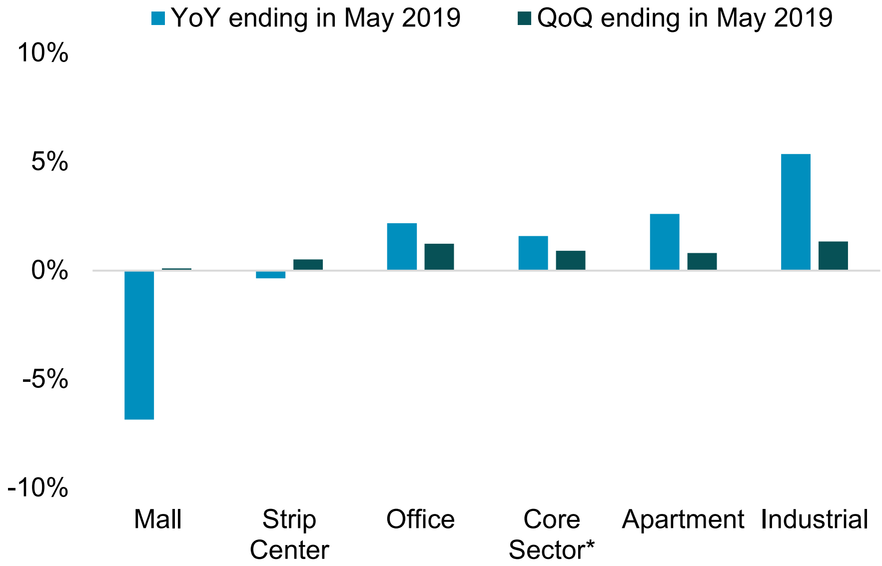
United States	Expansion average 2009-2018[1]	Q1 2019	2019*F	2020*F
Real GDP	2.2	3.1	2.9	2.5
Consumer Price Index (growth per year)	1.6	1.7	1.9	2.9
2-year U.S. Treasury Bills (yield per annum)	0.9	2.3	2.5	3.4
10-year U.S. Treasury Notes (yield per annum)	2.5	2.4	2.8	3.6
Unemployment rate	6.8	3.9	3.6	3.3
Recession probability	N/A	N/A	30.0	N/A

Source: [1] Bloomberg, Q1 2019
* Forecasted value

Tomorrow's view

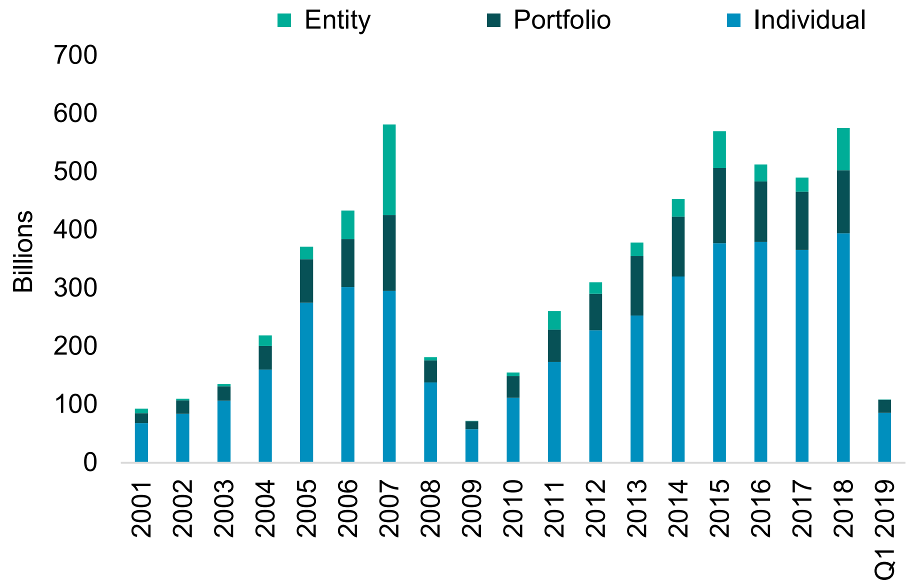
U.S. real estate values remain steady but transaction volumes are down

Fig. 2: Property prices by property types[1]



*Core Sector consists of mall, strip center, office, apartment and industrial categories

Fig. 3: U.S. total transaction volume as of Q1 2019[2]



According to the Green Street Advisors' Commercial Property Price Index, property values rose 1.6% in May 2019 relative to one year ago. Among the main property types, the industrial sector saw the strongest price appreciation, Mall prices fell 5.0% during the last year and are down nearly 20% from their January 2017 peak.[1] We expect U.S. real estate values to remain steady through the remainder of this real estate cycle.

U.S. transaction volumes fell 11.3% in the first four months of 2019 relative to the same period one year ago. Transaction volumes are falling for two reasons: falling cross border capital into the U.S. and investor uncertainty around interest rates and the economic outlook. During the first quarter of 2019 relative to the same period one year ago, cross border transaction volume fell by half. Entity level transaction volumes plummeted in the first few months of 2019 relative to 2018 given the lack of cross border transaction activity.

Source:[1] Green Street Advisors, Q2 2019 ; [2] Real Capital Analytics, Q1 2019

Tomorrow's view

U.S. real estate fundamentals to remain solid in 2019

Fig. 4: Vacancy rates across property types[1]

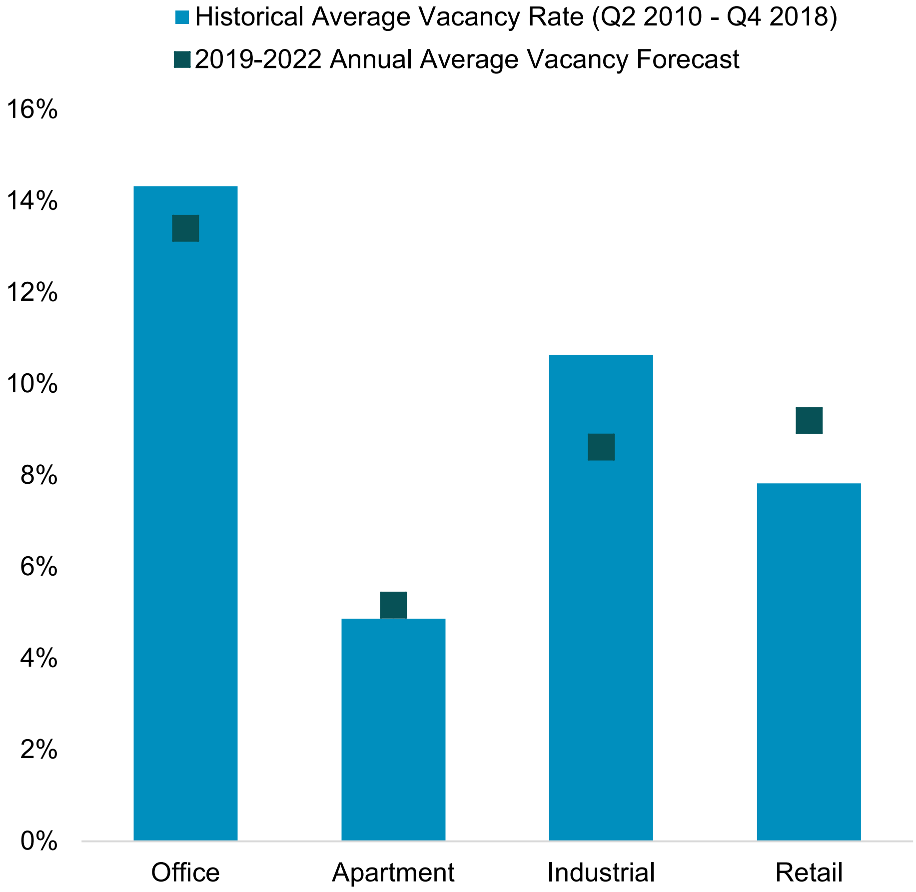
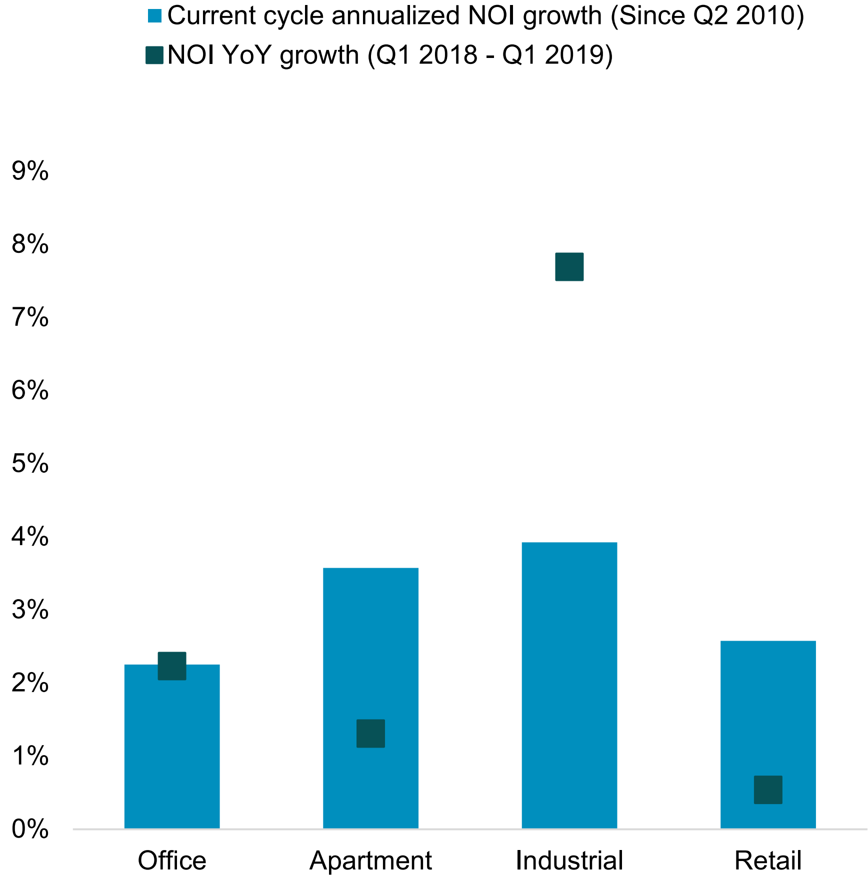


Fig. 5: Current cycle NOI growth[2]



Source:[1] CBRE-EA, Q1 2019 ; [2] NCREIF, Nuveen Real Estate , Q1 2019

Industrial

Strong demand driven by e-commerce retail sales

Fig. 6: Industrial transaction volume[1]

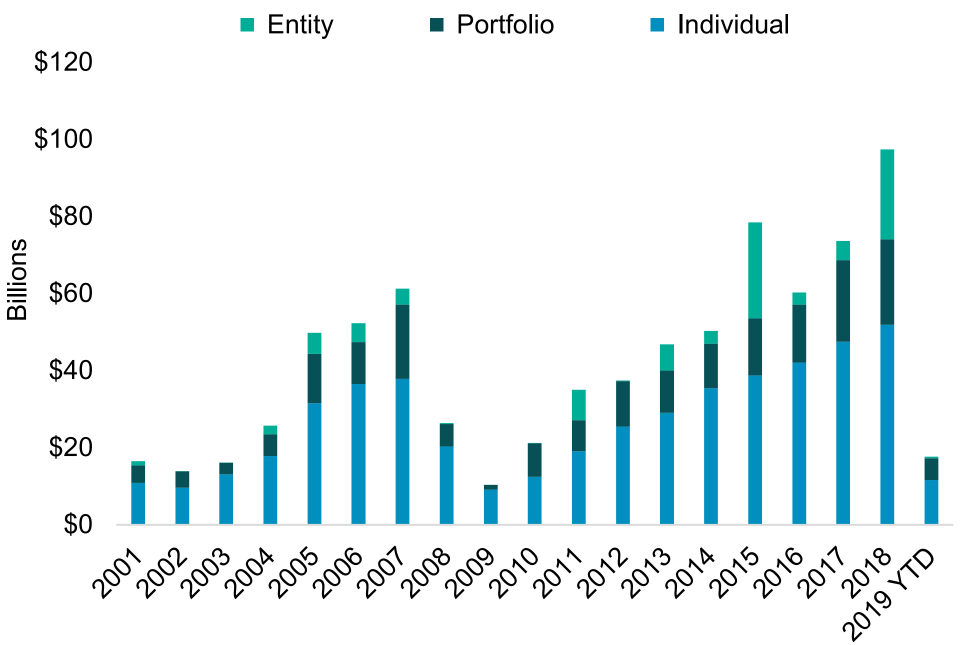
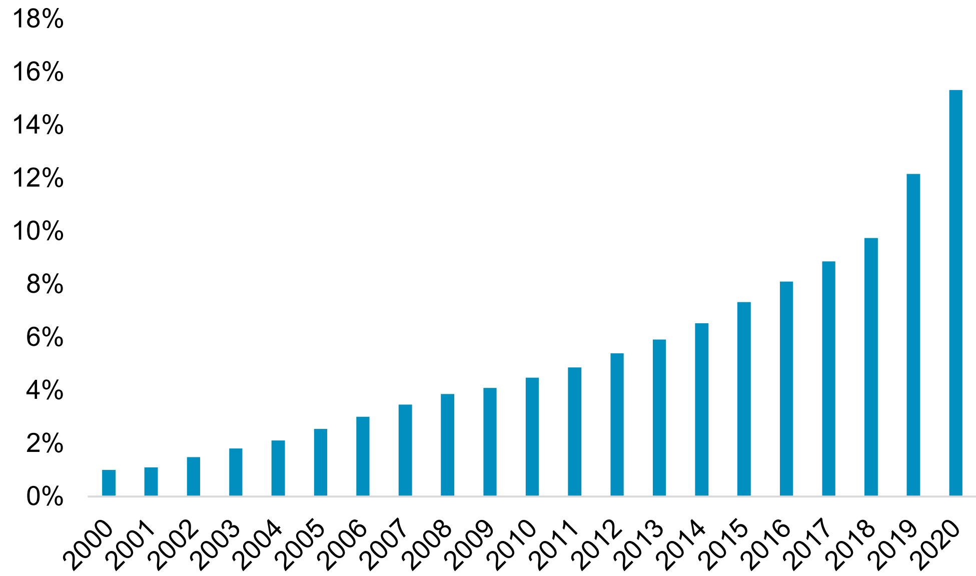


Fig. 7: Growth of e-commerce sales as a percentage of total retail sales[2]



The industrial sector continues to be a top performer as population growth and demand from e-commerce provide tailwinds for the sector. Warehouses NOI growth for the year ending Q1 2019 was 7.7% compared to 1% to 2% for the other property types.[3] E-commerce retail sales are expected to grow at least 14% per year from 2019-2022 which should continue to drive demand for warehouses.[4] Further, new developments in customer engagement, direct advertisement, voice recognition technologies and AI will continue to influence the rapid development of e-commerce.

The growing volume of e-commerce sales is correlated with the increase in the average clear height of new buildings. At 33.6 feet, the metric has gone up 18% over the past two decades, with tenants increasingly looking into 36-40 feet clear height range.[5]

Sources: [1] Real Capital Analytics, Q1 2019; [2] Bloomberg, Q1 2019; [3] NCREIF, Q1 2019; [4] eMarketer, Q1 2019; [5] JLL

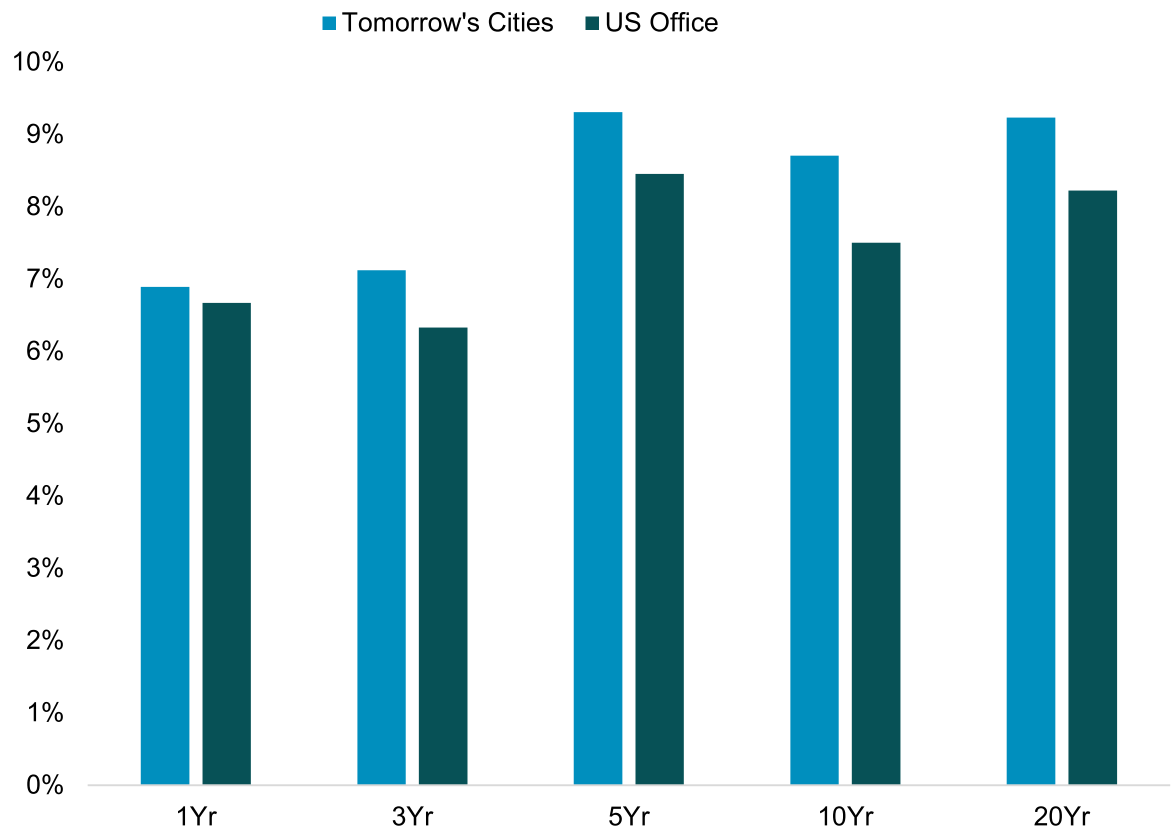
Office

Tomorrow's cities generate higher office total returns

Office total returns across our 35 U.S. Tomorrow's Cities[1] have historically been higher than overall U.S. office total returns. The 'tomorrow's cities' approach identifies cities poised to be long term structural winners. These cities benefit from strong population growth, a concentration of wealth and a high concentration of millennials relative to the national average. From an office perspective, these characteristics should help drive demand for office space.

The office sector continues to see shifts from traditional to flexible space as tenants increasingly want to customize their space. Markets with more tech tenants tend to have a greater proportion of co-working space. Further, office markets with a larger share of flexible workspace tend to have lower office vacancy rates. Demand for shorter leases and added flexibility will lead to increased demand for flexible work space.

Fig. 8: Office performance[2]



Sources: [1] Our proprietary research process identifies the top 2% of cities that we believe are best positioned in light of global megatrends. The process involves a four-stage filtering and scoring system, resulting in a list of cities which we believe are structurally positioned to grow in value over a long-term horizon. There are over 90 'tomorrow's cities' globally, including and 35 in the U.S.
[2] NCREIF, Q1 2019
It is not possible to invest in an index. Performance for indices does not reflect investment fees or transactions costs.

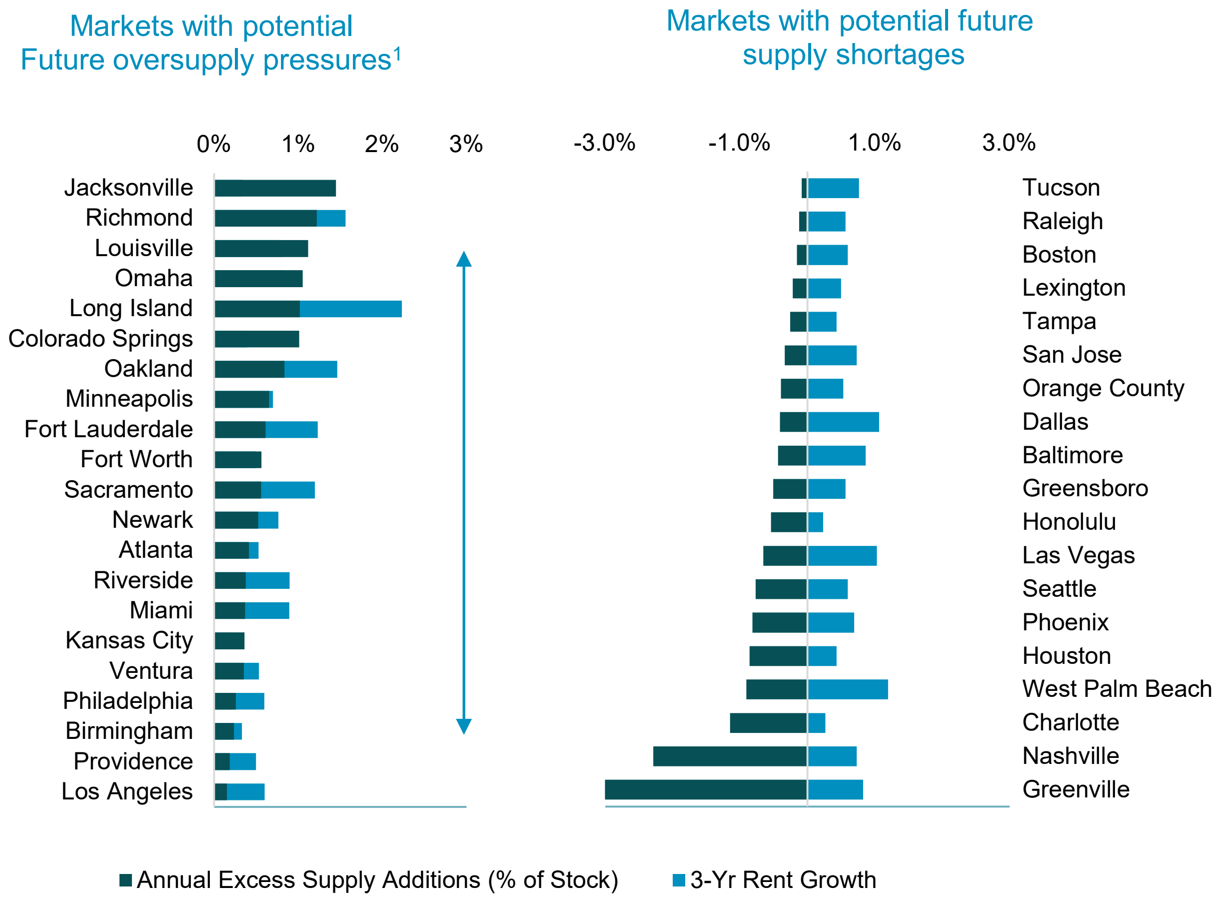
Housing
Markets at risk of oversupply

A number of U.S. apartment markets will experience favorable supply and demand conditions in the next three years. Greenville, Nashville and Charlotte may face supply shortages in the next several years. At the other end of the spectrum, Jacksonville, Richmond, Louisville and Omaha could experience oversupply pressures and weak rental growth.

New regulations are shaping housing policies across many U.S. apartment markets. In New York, historically significant tenant protection regulations were recently signed into law. These regulations are likely to remove shadow supply from rent-regulated apartments becoming market-rate, and are likely to discourage developers and landlords from investing in housing in the future.

The rent regulations are likely to limit the long-run supply of market-rate housing and slow the growth of affordable housing stock. The risks to asset values and operating fundamentals could disproportionally affect lower-quality apartments in the short run since these buildings are more likely to fall under initial changes in regulations. The longer-term consequences of the regulations might affect a broader set of landlords.[2]

Fig.9: Opportunities and risks in housing



Sources: [1] CBRE EA, Q1 2019, [2] Green Street Advisors, Q1 2019
Excess supply additions are calculated as the difference between the last 3-years and forward 3-years average supply growth rates for each market;

Retail

The store remains important

Fig. 10: Real median income levels for top 40% and bottom 60% of American households[1]

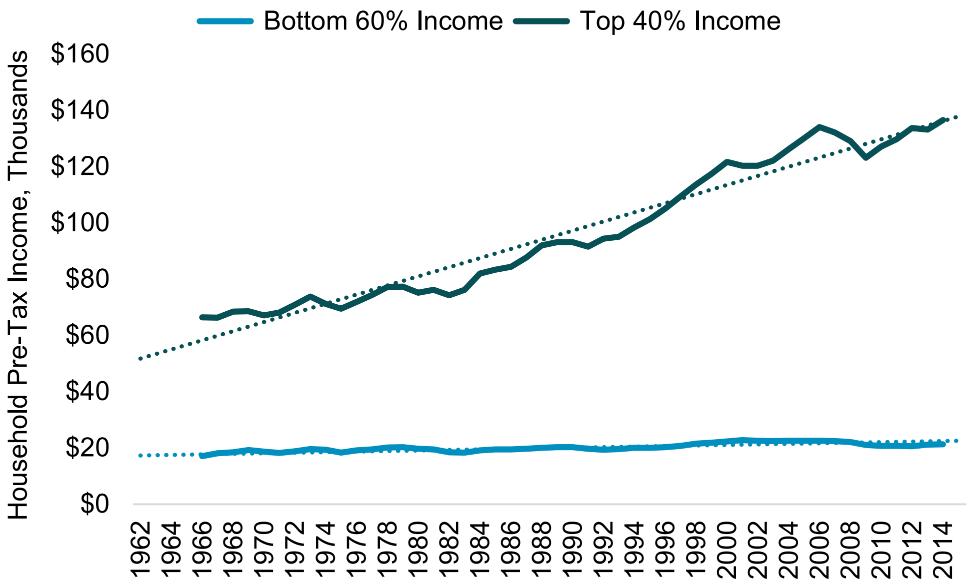
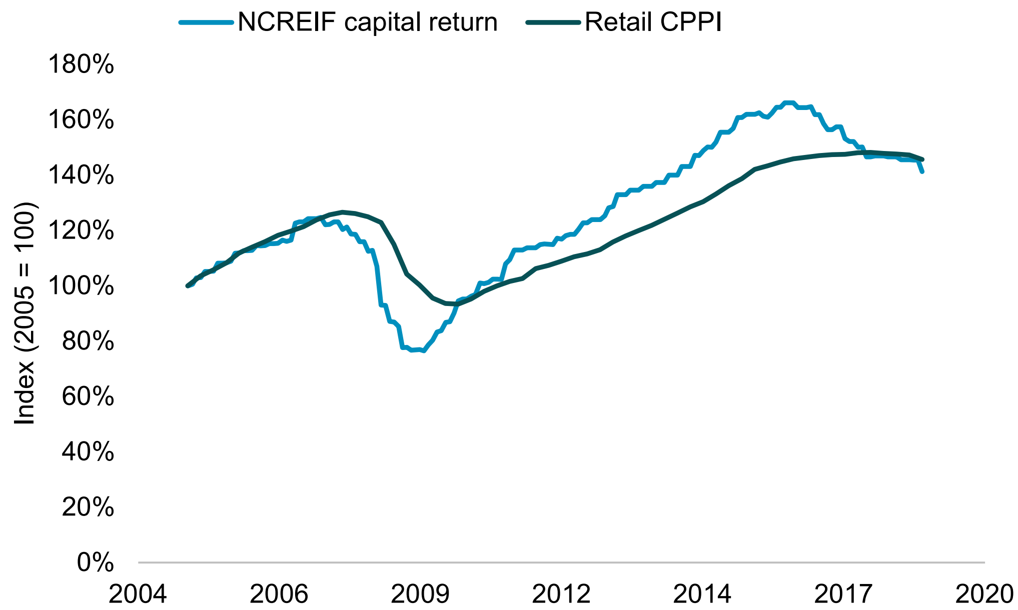


Fig. 11: Retail prices are correcting[2]



The U.S. economy is currently experiencing one of the longest expansions in its history. Yet the changing distribution of income across the population might render long-term instability, both economic and political, and produce deeper and longer recessions.

The U.S. income gap is at the highest level since the late 1930s, fueled by the stagnant growth in personal income for most households except those in the top 1%. Real median household income has remained flat for the bottom 40%. This trend will benefit high-end retail and retail sites that have off-price retailers as tenants.

According to Green Street's Commercial Property Price Index, retail prices are correcting. Recent trends in consumer sentiment and e-commerce, as well as year-over-year changes in retail sales, suggest a softening consumer spending environment in 2019. NOI growth will struggle as more retailers file bankruptcy.

In-store retail sales accounted for 90% of total retail spending as of May 2019. While e-commerce continues to grow rapidly, the majority of retail sales continue to happen in bricks and mortar stores. We believe well located, high productivity retail centers will survive the negative retail headlines.

Sources: [1] Wid.World, Q1 2019; [2] Green Street Advisors, NCREIF Q1 2019

Debt

Maturities to peak in 2022

Fig. 12: Loans maturing by lender type[1]

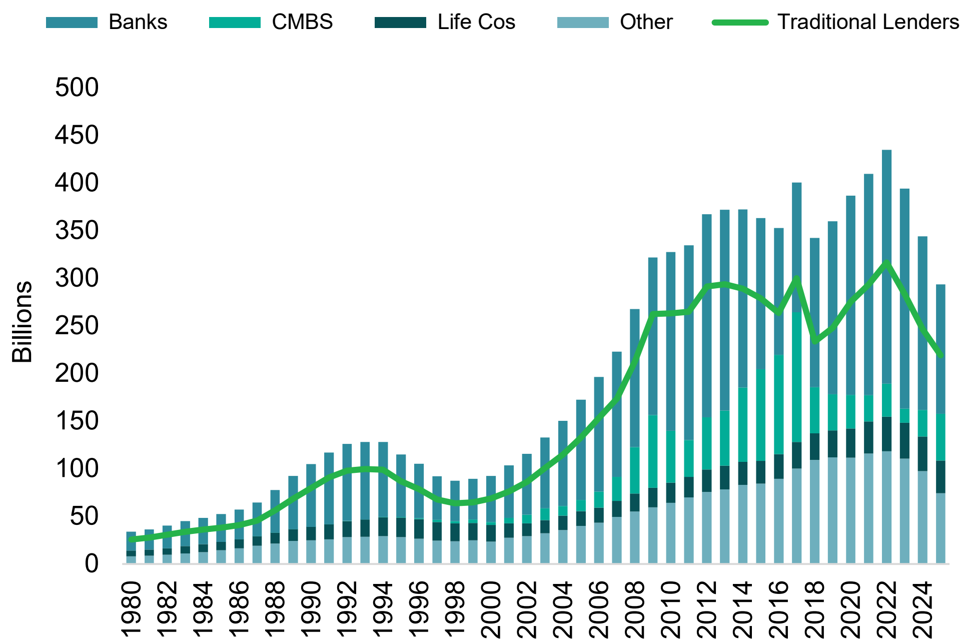
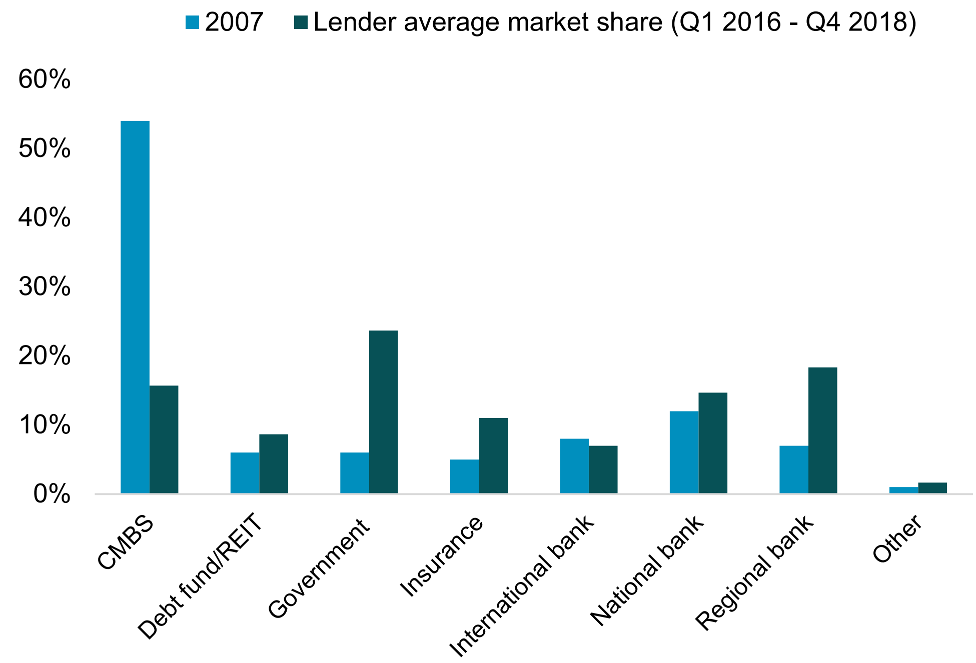


Fig. 13: Change in CRE lender market share since 2007[2]



The volume of loans maturities across all types of loans will continue to grow in the coming years. In 2022, loan maturities will reach an all-time high.[1] The composition and quality of upcoming loan maturities is different in this cycle than in previous cycles. The majority of the maturities are post-recession, with lower LTVs and were underwritten during a period of tighter lending standards. The volume of CMBS loans maturing will remain historically low. The diverse lender composition should allow for the upcoming "maturities wall" to be partially pre-paid and refinanced.

Commercial banks, life insurance companies, pension funds and mReits will continue to gain market share. According to Figure 13, regional banks, insurers and debt funds have gained the most lender share in the last decade while CMBS originators have lost a considerable amount of market share.[2]

Sources: [1] MBA, Q1 2019; [2] RCA, Morgan Stanley, Q1 2019

Tomorrow's cities
Tactical calls and market themes

Fig. 14: U.S. short-term city selection

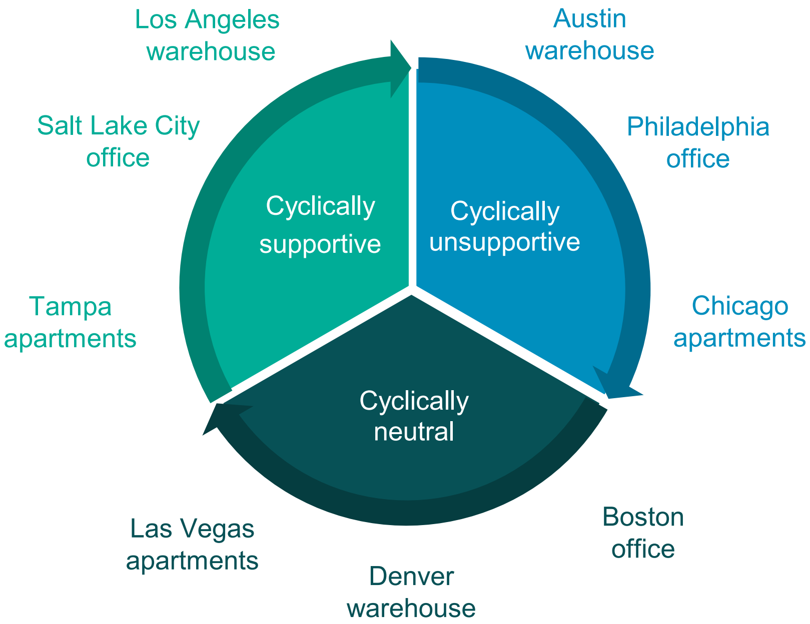


Fig. 15: Key U.S. market themes

At this stage of the current U.S. real estate cycle, carefully choosing markets and property types in which to invest remains critical. Our continued work on disruptors to commercial real estate and key trends across the different sectors directly contribute to which of our 'tomorrow's cities' we believe will outperform in 2019.

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