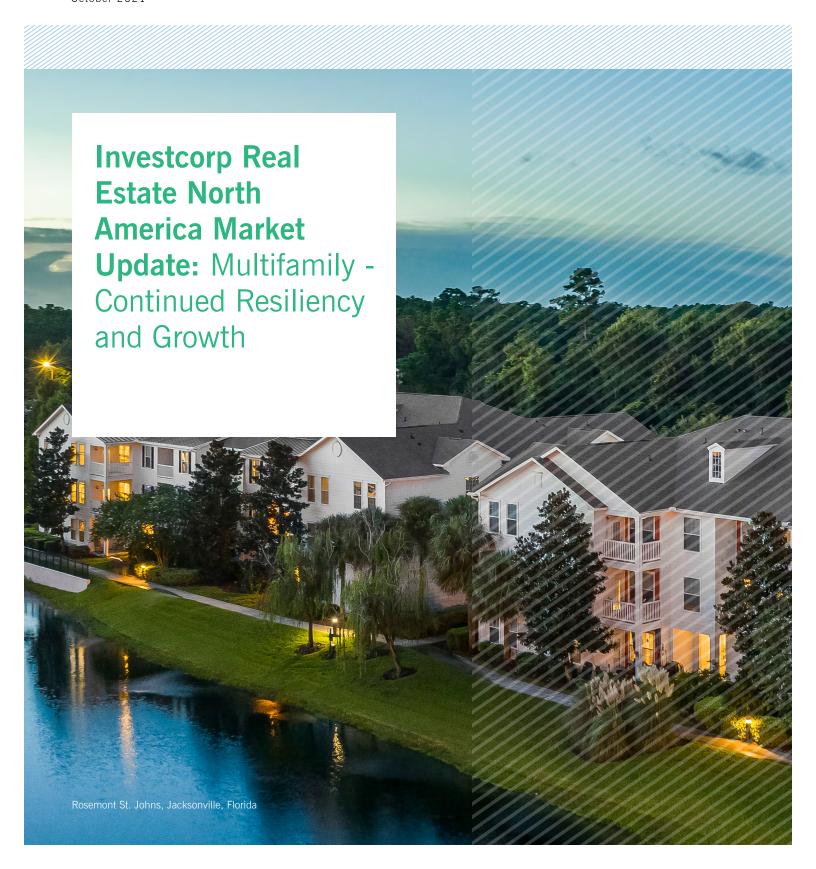
INSIGHTS

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Author



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Michael O'Brien oversees the group's Residential Investment activities in North America. O'Brien joined Investcorp in 2007 and assumed the role of Head of Asset Management for all North American real estate. Under his leadership, Investcorp Real Estate North America has established itself as one of the top-50 investors in United States real estate. O'Brien currently oversees the North American Residential vertical totaling over \$2.8 billion of assets under management.

Prior to joining Investcorp, he was a Director with ING Clarion Partners in its New York office since 1995. He worked on ING's \$200 million development fund, was an Assistant Portfolio Manager for several separate account clients and ran its CMBS Special Servicing group. Previously, O'Brien was at Reichmann International/ Quantum Realty Fund and Equitable Real Estate Investment Management. O'Brien holds a BS in Business Administration with a major in Finance from Georgetown University.



Overview

The outlook for the United States multifamily sector remains bright. While the COVID-19 pandemic has had a meaningful impact on investors, landlords and renters alike, the multifamily sector entered the pandemic on solid footing, and we believe it has the potential to continue to outperform in the years ahead.

Underpinned by strong fundamentals, the multifamily sector has shown resilience during these disruptive times. As such, despite the uncertain long-term implications of the pandemic, it should not affect the dynamics of supply and demand. Demand for multifamily property is expected to remain strong and will continue to outpace supply.

With homes becoming increasingly unaffordable, younger generations saddled with student debt will find home ownership unattainable. And while the recent crisis has led to even more millennials and Generation Z (under 24 years old) living at home with their parents, once the economic recovery is in full swing, this demographic represents a considerable pool of new renters.

Furthermore, the expansion of remote working means that people have more flexibility over where they live, which will likely favor cities where the cost of living is relatively more affordable.

On the supply side, while the pace of new construction has picked up meaningfully compared to the lows seen a decade ago, this is projected to not be enough to make up for current housing shortfalls. It is estimated that 2.3 million homes are needed each year over the next ten years to balance out the supply/demand imbalance. Until construction ramps up, housing shortages will persist, increasing demand for the rental market.

The multifamily sector is projected to continue to perform well as it has over the past two decades. Rental growth for apartments are also projected to continue to outpace inflation, making it a good hedge against the pressure of rising prices. Despite projected treasury yield increases in the years ahead, apartment cap rates are expected to stay low, supporting an increase in capital values.

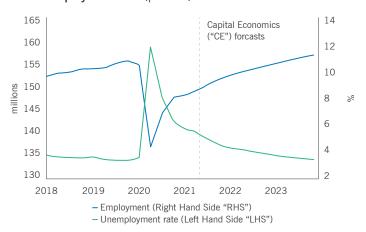
The macroeconomic outlook

Minimal long-term scarring expected from the pandemic

The success of the vaccine rollout has helped bring down virus cases and led to the reopening of nearly all parts of the economy. With GDP expected to return to its pre-virus trend next year (and already back to its pre-pandemic level), there is little reason why there should be any permanent damage to the economy's potential. Boosted by accommodative monetary and fiscal policy, GDP is expected to grow through 2022, before reverting towards a more sustainable rate of growth thereafter through 2025.

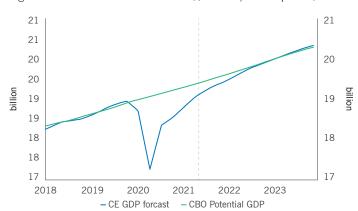
Widespread labor shortages mean that the rebound in employment should lag the recovery in activity. Yet the unemployment rate is projected to continue its rapid decline through 2023. By end-2023, it is projected to have returned close to its pre-pandemic level of 3.5%. With labor market conditions tighter than the unemployment rate suggests, wage growth will likely accelerate in 2022 (Figure 1).

Figure 1. United States non-farm payroll employment (millions) and unemployment rate (percent)



Sources: Capital Economics, Our World In Data and Refinitiv

Figure 2. United States real GDP (\$ billion, 2012 prices)



Sources: Capital Economics, Our World In Data and Refinitiv

Supply shortages should ease only gradually over the coming years

Core inflation to remain elevated

Supply shortages should have major implications for inflation over the next few years. The recent surge in headline CPI inflation to a 13-year high of 5.3% in August was mainly driven by transitory factors, which is projected to eventually fade. Yet the weakening of these transitory price pressures is projected to be largely offset by a pick-up in cyclically sensitive inflation, driven by stronger wage growth.

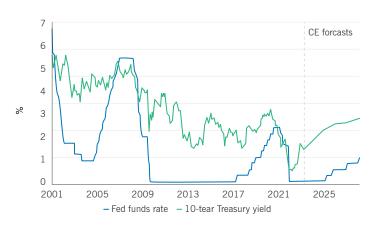
Rising bond yields is projected to remain low by historic standards

Although officials view the surge in inflation as largely transitory, the Fed is on track to begin tapering its asset purchases by early next year at the latest.

Thereafter, the nominal policy rate is projected to remain well below the rate of price inflation. Real short-term rates are projected to stay below zero for most of the next decade. Only after, is the Fed projected to make a more serious effort to rein in inflation, shifting policy to a more neutral setting.

10-year Treasury yields have risen over the past year as the economy has recovered. Long-dated yields will continue to rise as investors require higher compensation for inflation and/or discount a tighter real stance of monetary policy. It is expected that the 10-year Treasury yield will continue to rise in the next few years (Figure 3).

Figure 3. Fed Funds rate and US 10-year Treasury yield (percent)



Sources: Capital Economics and Refinitiv

Housing price boom is projected to soon slow, while rental growth has further to run

Housing price growth projected to start to ease in 2022

Housing prices in the United States grew by 16.6% in May compared to a year earlier, the highest rate of growth since records began in 1988. This is on the back of high demand, low supply, historically low mortgage rates and a COVID-inspired flight from heavily populated urban areas to smaller cities.

But with housing demand now showing signs of easing and mortgage rates projected to rise, housing price growth is projected to slow. Affordability is being stretched and home sales have been trending downward since the start of the year.

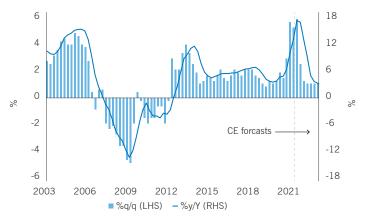
Rental growth set for a strong year

Following a sharp fall during the pandemic, rents are now rebounding. At 1.9% in June, annual rental growth on the CPI measure is still historically low. And the REIS measure of effective rents showed a fall of 3.2% year-over-year in Q1 2021 (Figure 5).

However, timelier measures of asking rents, such as the Zillow rent index, have seen a rapid turnaround in recent months. At 5.4% year-over-year in May, growth on the non-seasonally adjusted Zillow index is at a six-year high.

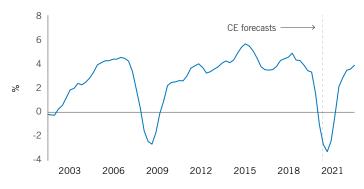
Strong rental demand as cities have reopened and households have made delayed moves, coupled with relatively tight markets, are driving rents higher. Looking ahead, tight labor markets and solid earnings growth are projected to provide further support to rental growth over the next couple of years. This means there should be a strong rebound in effective apartment rental growth.

Figure 4. **United States housing prices, Case-Shiller Index** (quarter-over-quarter and year-over-year change, percent)



Sources: Capital Economics, Case Shiller and REIS

Figure 5. **REIS effective rental growth** (year-over-year change, percent)



Sources: Capital Economics, Case Shiller and REIS

Key drivers of multifamily property

There are a number of factors supporting the investment case for multifamily property in the United States:

1 Demand drivers

- Large scale pent-up housing demand to be unlocked once economy recovers
- Generation Z (under 24 years old) will be saddled with increasing student debt
- Expansion of remote working will sustain internal migration to cities where the cost of living is relatively more affordable

(2) Housing supply shortage

- An under supply of housing, particularly since the Global Financial Crisis, will support housing prices and rents for some time to come
- Stock of homes for sale is low and new construction will not make up shortfall over next five years
- Booming housing prices will put pressure on affordability, while tight inventory and credit conditions will continue to constrain owner occupied purchases

(3) Stability

 Apartments have higher and more stable occupancy rates than other property assets

(4) Outperformance

- Despite projected treasury yield increases, apartment cap rates are projected to stay low in next couple of years, supporting a projected increase in apartment capital values
- Apartment rental growth has performed well over the past two decades



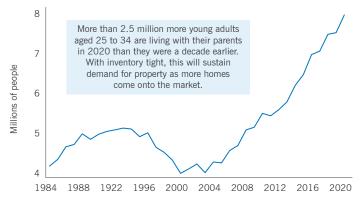
Demand driver: Large scale pent-up housing demand to be unlocked once economy recovers

Rising demand for Multifamily as renters move out of parent's homes

Young adults continue to be the most likely of all age groups to rent, with heads of households ages 35 or younger comprising 34% of all renters compared with 19% of all homeowners.

This demographic will continue to drive multifamily demand. Close to one in five adults aged 25 to 34 lived at home with their parents in 2020. This amounts to just over eight million people, and 2.5 million more than were living at home a decade ago (Figure 6).

Figure 6. Young adults aged 25 to 34 living at home with parents (million persons)



Sources: Capital Economics and the US Census

The rising cost of homeownership, student debt and lifestyle preferences are all factors explaining why millennials are opting to rent rather than own. Once the economy recovers, job opportunities will provide more financial flexibility to live independently. As millennials leave home and students go back to school, demand for multifamily units should rise. With housing inventory tight, this

pent-up demand should help to sustain the rental market in the years ahead.

The Sun Belt region is projected to be a particular beneficiary of increased demand from millennials. The population aged 25 to 35 is projected to increase by 18% in Texas between 2020 and 2030, with large increases also expected in North Carolina, Georgia, Arizona and Florida. This compares to an increase in the national average of just 2.4% and is in stark contrast with expected declines of this demographic in coastal states. New York and Washington DC, for example, are expected to see a decline in its millennial population, and pool of future renters, over the next decade.

Demand driver: Generation Z (under 24 years old) will be saddled with increasing student debt

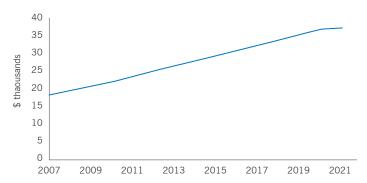
College debt is a top obstacle towards homeownership for Generation Z

Prospects of homeownership for the even younger generation are not bright either.

While the overall US homeownership rate has fallen markedly since the onset of the Global Financial Crisis, the decline has been particularly pronounced among young households. The homeownership rate for households headed by individuals aged under 35 fell 8 percentage points (from 43% to 35%) between 2004 and 2019, 2 percentage points more than the drop in homeownership for the overall population.

Rising student debt has been a major driver in this decline in homeownership for the young, and will be a particular challenge for Generation Z (those under the age of 24). Over the last ten years, the amount of federal student debt per student has increased by 60%, from \$23,200 per student in 2011 to just over \$37,100 in 2021 (Figure 7).

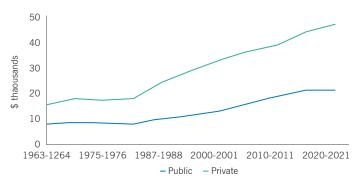
Figure 7. **Outstanding federal student debt per student** (\$ thousands)



Sources: Capital Economics, EducationData.org and Federal Student Aid, US Department of Education

This is unsurprising given that the average annual cost of attending a 4-year college course in the 2020 to 2021 school year is \$21,400 for public institutions and a staggering \$46,500 for private institutions (Figure 8).

Figure 8. Average annual cost of tuition and fees, room and board per year for a 4-year course (\$ thousands, 2021 prices)



Sources: Capital Economics, EducationData.org and Federal Student Aid, US Department of Education

Rising student debt burdens are projected to continue to depress homeownership for the young by reducing their ability to qualify for a mortgage. Generation Z may also have less of a desire to take on more debt, as it could take nearly 10 years to save up a 20% down payment.

Research by the Federal Reserve Board reveals that a \$1,000 increase in student loan debt lowers the homeownership rate by about 1.8 percentage points for public 4-year college-goers during their mid-20s, equivalent to an average delay of about 4 months in attaining homeownership.

Demand driver: Expansion of remote working should sustain internal migration to cities where the cost of living is relatively more affordable

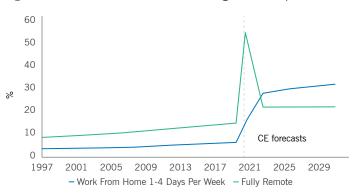
The next decade will see more full-time remote working

Prior to the pandemic, the share of fully remote-working in office-based sectors was close to 15%. That figure spiked temporarily to around 55% last year at the height of crisis. While the adoption of a hybrid office/remote working model is the most likely outcome going forward, it is still expected that an increased share of office workers will work from home on a full-time basis.

By 2025, it is estimated that 22% of office workers will be working remotely full-time. This is a 7-percentage point increase compared to 2019, and could represent an increase of up to 2 million workers with more flexibility over where they live. Moreover, by 2025 it is expected that 30% of office workers will

be working from home at least one day a week, meaning 7 million more workers will have flexibility to move further from central city locations (Figure 9).

Figure 9. Share of office workers working at home (percent)



Sources: Capital Economics, US Census and the Council for Community and Economic research

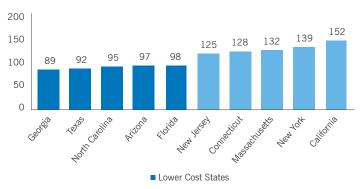
Rise in remote working should favor lower cost states

Fully-remote working means that employees will no longer need to live in or near large, and expensive, urban city centers. On measures of housing, utilities, transportation, groceries and health, Sun Belt states have material lower costs of living compared to areas in the North East and West Coast.

The rise in remote work flexibility may sever the tie between labor markets and housing markets for a meaningful portion of the workforce, particularly the "untethered class". These are workers who are employed in remote-friendly occupations but are also not tied down by homeownership or family obligations. Given that so many young workers are living in the nation's most expensive housing markets, many may choose to relocate to areas where the cost of living is more affordable.



Figure 10. **Composite cost of living index** (smaller number more reasonable)



Sources: Capital Economics, US Census and the Council for Community and Economic research

Housing supply shortage: An under supply of housing, particularly since the GFC, are projected to support house prices and rents for some time to come

Homebuilding has fallen short

There has been a sharp drop off in the supply of new housing units since the Global Financial Crisis of 2008. With home prices rebounding and housing demand high, one would expect builders to increase production. Instead, they are providing less housing (relative to population) than in the past. The problem has been exacerbated by zoning regulations, a lack of skilled labor and a lack of available land.

After nearly a decade of low levels of building, housing stock is far short of what the United States needs. While housing completions are now getting closer towards their long-run average, homes need to be built at a considerably faster pace to make up for the shortfall over the last decade.

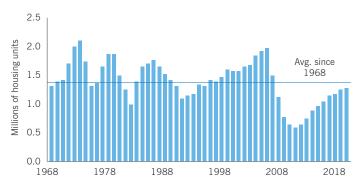
Demand has far outpaced supply over the last decade

Between 2010 and 2020, 10.4 million new homes were built. Yet over this same time period, 14.3 million new households formed, leaving a shortage of 3.8 million homes.

Further compounding this shortage, is that over time, housing stock gradually depreciates and therefore must be replaced. Estimates from the Census Bureau indicate that the US housing market needs to add approximately 360,000 units per year to replace lost units. Over the last ten years, this has amounted to a loss of roughly 3.6 million housing units.

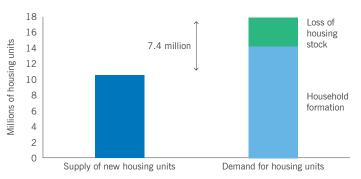
In all, this means that demand for housing has outpaced supply to the tune of 7.4 million homes over the last decade (Figure 12). Lack of homes for sale should support rental demand, and lead to a steady rise in rental households over the next few years.

Figure 11. Housing units completed in the United States (millions)



Sources: Capital Economics, US Census Bureau and Bureau and Rosen Consulting Group

Figure 12. Supply and demand for housing units between 2010 and 2020 (millions)



Sources: Capital Economics, US Census Bureau and Bureau and Rosen Consulting Group

Housing supply shortage: Stock of homes for sale is low and new construction should not make up the shortfall in the years to come

Pace of new construction is not enough to put market in balance

Homebuilder confidence remains high by historical standards, which suggests that housing starts will continue to outperform pre-pandemic levels for the next five years.

Confidence is being supported by record low inventory and elevated sales expectations. The lack of homes for sale has made it difficult for buyers to find suitable properties in recent months, and there is still strong demand for those looking to buy a home. Coupled with the solid pipeline of authorized but not started homes, this points to a solid outlook for starts over the coming years.

While the pace of new construction looks bright, this is not enough to make up for current housing shortfalls.

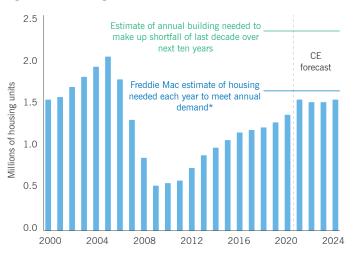
A report published by Freddie Mac in 2018 estimated that 1.62 million new housing units are needed each year to meet annual

demand. Not only are the 220,000 units more per year than the current rate of supply, it is also over 740,000 units per year short of what is needed to match long-term demand (Figure 13).

It is estimated that 2.3 million new homes are needed each year over the next ten years, or 23 million homes, to balance out the supply/demand imbalance that has built up over the last decade.

Until construction ramps up, housing costs will likely continue rising above incomes, constricting household formation and preventing homeownership for millions of potential households. This bodes well for demand for the rental market.

Figure 13. Housing starts (millions)



Sources: Capital Economics, US Census Bureau and Freddie Mac.

Housing supply shortage: Booming housing prices should put pressure on affordability, while tight inventory and credit conditions should continue to constrain owner occupied purchases

Deteriorating affordability should constrain housing demand

Booming prices are stretching affordability. While lower mortgage rates have supported affordability over the last few years, there are signs that it is starting to worsen. Mortgage payments as a share of median family income rose to 16% in April for first time in almost two years.

While sill favorable compared to its long-run average, this projected increase act to constrain housing demand over the next few years.

Tight mortgage lending standards should have a similar effect. There are no signs that lenders are loosening credit conditions on the back of rising house prices, which is cutting the purchasing power for many potential homebuyers. And tight inventory should further constrain demand.

Homebuying sentiment at decadal lows

Lack of inventory and rising house prices has led to a slump in homebuyer sentiment. According to Fannie Mae's monthly housing market survey, just 28% of households thought that it was a good time to buy in July, a decadal low and down from 60% in October of last year (Figure 14).

Figure 14. Fannie Mae monthly housing market survey, share of respondents saying now is a good time to buy (percent) and US house prices, Case-Shiller Index (year-over-year change, %)



Sources: Capital Economics, the National Association of Realtors and Fannie Mae

Potential homebuyers appear to be increasingly sensitive to the lack of affordability, as home prices continue to increase and homes for sale remain in short supply.

These factors point to further declines in home sales, which will help support rental demand.

Stability: Apartments have experienced stable occupancy rates over the past two decades

Apartments provide investors with a stable asset class

Multifamily apartments are a stable asset class. Driven by the persistent need for housing, multifamily investments show durability even in times of economic turbulence. This can clearly be seen in the asset classes' resilience through the COVID-19 pandemic.

While office and retail asset classes have been dependable with lengthy lease terms and a growing economy, the success of online retailers and the ease of remote work have begun to cause meaningful disruption to their attractiveness.

^{*}This estimate is from a 2018 report by Freddie Mac, and the most recently available estimate.



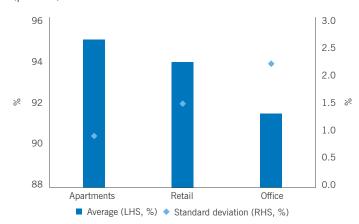
On the other hand, with demand expected to continue to outpace supply, favorable demographic trends and a supportive environment for capital gains, the outlook for apartments looks bright.

The attractiveness of apartments can be seen in their occupancy rates. Occupancy rates for apartments have averaged 95% between 2000 and 2020, higher than other asset classes (Figure 15).

Occupancy rates have also been the most stable over this time period, shown by the lowest standard deviation. (Note: Standard deviation is a measure of the average distance from the mean of a series over time. A smaller standard deviation means that there is less variation over time.)

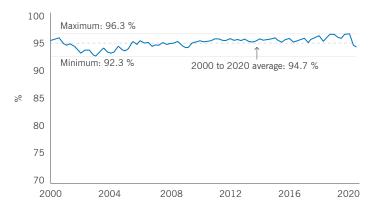
Occupancy rates for apartments have fallen within just a 4-percentage point range over the past two decades (Figure 16). This compares with a range of 4.9-percentage points for retail and 9.1-percentage points for office.

Figure 15. Occupancy rates by type of asset class, 2000-2020 (percent)



Sources: Capital Economics and NAREIT

Figure 16. Occupancy rates for apartments (percent)



Sources: Capital Economics and NAREIT

Outperformance: Despite treasury yield increases, apartment cap rates are projected to stay low in the next couple of years, supporting an increase in capital values

Strong projected rental growth are projected to keep cap yields low

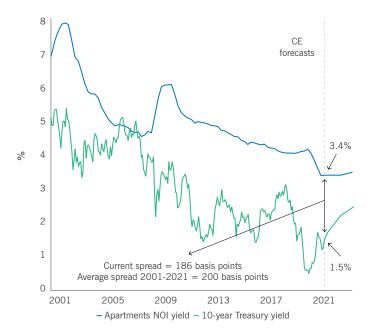
The economic recovery continues in earnest, but this is raising questions about quite how transitory the current high rates of inflation are. Core inflation will likely stay elevated, which should force the Fed to push up rates.

While rising Treasury yields are projected to squeeze the yield gap enjoyed by apartments, given the strong prospects for NOI growth in the apartment sector, apartment yields are projected to stay low.

Spreads between bond and property yields are also currently generous enough to absorb higher long rates in the short term. The current spread between apartment cap rates and 10-year Treasury yields is 186 basis points, above the 2001 to 2021 average of 200 basis points.

Lower vacancy rates and accelerating rental growth will support apartment income. A substantial recovery in net operating income will mean that yields see little change over the year, despite strong investor demand.

Figure 17. Apartment cap rates and 10-year US Treasury yield (percent)



Sources: Capital Economics and Refinitiv

Outperformance: Apartment rental growth has outperformed over the past two decades

Apartment rental growth is projected to outperform over next two years

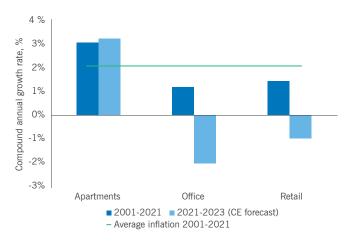
Apartments have outperformed over the past two decades in terms of rental growth.

Since 2001, apartment rents have grown at an average annual rate of 3.0%. This is roughly double the growth seen by the retail (1.4%) and office sectors (1.2%) over this same time period.

Rental growth for apartments has also far outpaced average inflation over the past two decades, making the asset class well positioned to respond to price pressures.

Going forward, apartment rental growth will continue to outperform. A robust recovery in demand, supported by pent-up demand from last year, will cut vacancy rates and boost rental growth.

Figure 18. **Rental growth by asset class** (Compound annual growth rate, percent)



Sources: Capital Economics and REIS

The latest NMHC survey on the apartment market showed a sharp rise in the balance of investors reporting tightening conditions. This bodes well for apartment rental growth. It is expected that growth will accelerate over the next few years.

This outperformance is in stark contrast to the outlook for offices and retail, where rental growth is expected to deteriorate over the next few years.

Conclusion

Overall, the prospects for multifamily assets in the United States are bright as a result of strong demand drivers and a continued shortage of new housing supply. Apartment rental growth is expected to continue to outperform, as it has over the past two decades.

With strong investor demand set to continue, keeping cap rates relatively low despite increases in treasury yields, we believe that multifamily capital value growth and total returns have the potential to exceed all-property averages over the next five years.

About Investcorp's Real Estate Platform

Investcorp is a leading global real estate investment manager. Since 1996, we have acquired 1,025 properties approximately, totaling more than US \$21 billion in value. We currently have a portfolio of real estate assets in excess of US \$8 billion in the US, Europe & India and have annual new deal activity of approximately US \$2 billion per annum. We have a long-established history investing in real estate and driving value across market cycles with:

- More than 500 buildings realized
- North America leadership average tenure of over 20 years
- North America leadership average industry experience of over 30 years
- We consistently rank among the most active real estate buyers and sellers in the US. The US platform maintains a leading position with steadily increasing AUM. Over the two-year period of 2019 and 2020, Investcorp was the third largest cross-border buyer and fourth largest cross-border seller of US real estate, according to Real Capital Analytics.



About Investcorp

Investcorp is a global investment manager, specializing in alternative investments across real estate, private equity, credit, absolute return strategies, GP stakes and infrastructure. Since our inception in 1982, we have focused on generating attractive returns for our clients while creating long-term value in our investee companies and for our shareholders as a prudent and responsible investor.

We invest a meaningful portion of our own capital in products we offer to our clients, ensuring that our interests are aligned with our stakeholders, including the communities that we operate within, towards driving sustainable value creation. We take pride in partnering with our clients to deliver tailored solutions for their needs, utilizing a disciplined investment process, employing world-class talent and combining the resources of a global institution with an innovative, entrepreneurial approach.

Investcorp has today presence in 12 countries across the US, Europe, GCC and Asia, including India, China and Singapore. As of June 30, 2021, Investcorp Group had US \$37.6 billion in total AUM, including assets managed by third party managers, and employed approximately 430 people from 45 nationalities globally across its offices. For further information, visit and follow us:

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