

July 2019 / Research Report

# U.S. REAL ESTATE STRATEGIC OUTLOOK

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# 1 / Overview

U.S. real estate continues to perform well. Unlevered core total returns, as measured by the NCREIF Property Index (NPI), ticked up to 6.8% on a trailing four-quarter basis in the first quarter of 2019.<sup>1</sup> The performance was somewhat uneven: Industrial boomed while malls and a handful of apartment and office markets (e.g., Chicago and New York) struggled. But overall, the combination of low vacancy rates, balanced supply and demand, strong rent growth, and stable (to modestly lower) cap rates continued to support investment returns.

In our view, the outlook for U.S. real estate remains upbeat. Although economic growth is not expected to sustain the roughly 3% annualized pace set in the first quarter, the Federal Reserve's decision to keep interest rates on hold has helped to dampen near-term risks. Meanwhile, new supply appears to have peaked amid acute skilled-labor shortages, allowing vacancies to remain anchored near today's historically low levels. Financial markets are volatile, but lower interest rates could bolster capital flows into real estate, keeping cap rates steady.

There are looming medium-term risks. Among the greatest is that leading indicators such as the yield curve point to a rising probability of recession after next year, a scenario that would undermine occupational and investor demand for property. But while real estate is not impervious to the economy, we believe it should prove resilient thanks to a moderate supply pipeline, reasonable valuations (relative to interest rates), and manageable debt burdens (see Exhibit 1). Timing the cycle precisely is difficult to impossible, but in our view, given these initial conditions, real estate should hold up well relative to stocks and bonds over a five-year horizon, particularly on a risk-adjusted basis.

## EXHIBIT 1: U.S. REAL ESTATE INDICATORS DASHBOARD

	Metric	20-Year Average	Standard Deviation	January 2008	Sign	June 2019	Sign
Economy	Yield Curve (Long less Short)	160 bps	130 bps	-20 bps	↓	-20 bps	↓
	Credit Spreads (BBB – Treasury)	180 bps	80 bps	250 bps	↔	150 bps	↔
Supply	Construction (% of GDP)	0.9%	0.2%	1.1%	↔	0.9%	↔
REITs	REIT NAV Premium/Discount	+2%	11%	-18%	↓	4%	↔
Valuations	Cap Rate	6.2%	1.3%	5.0%	↔	4.4%	↓
	Cap Rate Spread to Treasuries	2.5%	0.9%	1.3%	↓	2.3%	↔
	Cap Rate Spread to BBB	0.8%	1.1%	-1.2%	↓	0.8%	↔
Mortgage Debt	Mortgage Debt (% of GDP)	18.7%	2.8%	22.1%	↓	20.5%	↔
	Average LTV	65%	3.0%	69%	↓	60%	↑
	CMBS Option-Adjusted Spread (OAS)	200 bps	100 bps*	400 bps	↓	90 bps	↑

\* ½ standard deviation

Past performance is not an indicator of future results. Some of the above information is a forecast or projection. Any projections are based on a number of assumptions as to market conditions and there can be no guarantee that any projected results will be achieved.

Sources: Federal Reserve (Treasury yields, BBB yields, mortgage debt), NAREIT (REIT NAV and prices), NCREIF (cap rates), Real Capital Analytics (LTV), Barclays Live (CMBS spread), Bureau of Economic Analysis (GDP), DWS calculations. As of June 2019.

<sup>1</sup> NCREIF. As of March 2019.

A combination of positive near-term momentum and rising medium-term risks has important implications for investment strategy. Given the inherent uncertainty around timing and our expectation that the severity of the next downturn will be limited, it is not advisable, in our view, to batten down the hatches — but it may be prudent to trim risk. From our perspective, extending lease duration, improving tenant quality, and reducing value-add exposure should help to fortify cash-flow durability, while controlling leverage can help to mitigate valuation risks. There are also important implications for sector and market allocation.

## 1.1 Sector Allocations

If history is a guide, rising medium-term risks would argue for tilting away from Office, a pro-cyclical sector, toward Retail, a defensive one (Apartment and Industrial are historically market-neutral). At the same time, it is important to consider how structural forces may alter historical patterns: in particular, we believe that e-commerce will continue to benefit and challenge Industrial and Retail, respectively. Accordingly, our strategy assigns a strong overweight to Industrial, an underweight to Office, and market weights to Apartment and Retail.

- Industrial (Overweight):** Total returns of 14.0% (trailing four quarters) in the first quarter of 2019 were more than double those of any other sector.<sup>2</sup> The strength of the fundamentals is difficult to overstate: the vacancy rate for core industrial property slid to 3.3% (four-quarter moving average), its lowest level on record and well below its 30-year average (8.3%), while Net Operating Income (NOI) growth clocked 8.8% (year-over-year, four-quarter moving average), also near a record.<sup>3</sup> Virtually all cities and product types have profited from the economic expansion as well as e-commerce, specifically the scramble to assemble the logistical capacity to provide same-day delivery of online orders, and to recirculate higher levels of returns. However, as construction has picked up in a few inland distribution hubs (i.e., Chicago, Dallas, and Atlanta), more supply-constrained coastal cities (e.g., Seattle, San Francisco, Los Angeles, and New York) have outperformed, a trend that we expect to continue.
- Office (Underweight):** Having lagged behind for most of the past 10 years, the office sector has recently performed well, producing total returns of 6.7% (trailing four quarters) in the first quarter of 2019, second only to Industrial.<sup>4</sup> Owners are realizing substantial NOI gains (4.5% in the first quarter, year-over-year, four-quarter moving average) as they roll leases signed five or 10 years ago to today's higher market rates.<sup>5</sup> We believe that this trend will continue to lift the sector's relative performance over the near term. However, we are more cautious over the medium term for several reasons, including: the ongoing densification of corporate space usage; constraints on future job creation amid low unemployment, an ageing workforce and more restrictive immigration policies; and the inherent volatility of the sector as we move into the later stages of the cycle. Even so, we expect several dynamic markets, including Seattle and Austin, to continue to outperform.
- Apartment (Market weight):** Apartment total returns, measuring 5.9% in the first quarter of 2019, have trailed those of the NPI since 2013 as an influx of new (primarily luxury, urban) supply has nudged vacancies higher and NOI growth lower.<sup>6</sup> More recently, homeownership has also ticked up as ageing Millennials have belatedly entered the housing market, although strong household formation has sustained apartment demand.<sup>7</sup> We believe that supply will remain elevated in 2019; however, a gradual ebbing of new starts points to lower deliveries in 2020. Moreover, financial imperatives, including rising home prices and the capping of federal housing tax benefits, should sustain rental demand despite shifting demographics. Segments facing less near-term supply pressure (well-located, garden-style product) and markets with strong population growth (e.g., Phoenix, Atlanta, and Florida) we expect to continue to outperform.
- Retail (Market weight):** Retail property struggled in the face of relentless e-commerce pressure, recording total returns of just 3.2% (trailing four quarters) in the first quarter of 2019.<sup>8</sup> Yet retail is not a lost cause. Malls, which typically have substantial tenant exposure to apparel and other goods that can be readily purchased online, delivered total returns of

<sup>2</sup> NCREIF. As of March 2019.

<sup>3</sup> NCREIF. As of March 2019.

<sup>4</sup> NCREIF. As of March 2019.

<sup>5</sup> NCREIF. As of March 2019.

<sup>6</sup> NCREIF. As of March 2019.

<sup>7</sup> Census Bureau. As of April 2019.

<sup>8</sup> NCREIF. As of March 2019.

Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

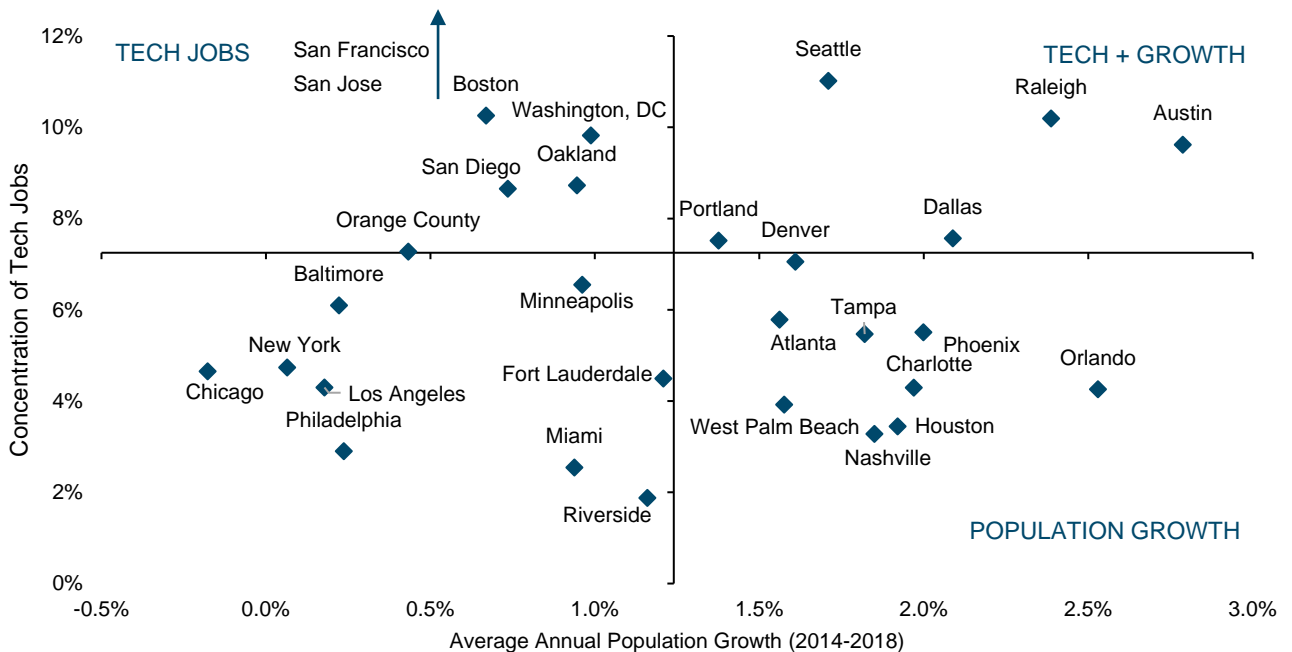
just 2.1% (trailing four quarters). But neighborhood centers, whose tenant mix typically features more in-demand services, including health care, dining, and fitness, produced returns of 5.3%. While Retail's travails are not over, we believe that well-located neighborhood, community, and power centers with a healthy tenant mix will continue to fare reasonably well, and can provide income and downside protection to a portfolio. Conversely, while we expect that dominant, Class A malls will survive and even thrive as recharged, entertainment-infused shopping destinations, the costs of re-tenanting defunct department and apparel stores to create experience-rich environments may drag on investment performance

## 1.2 Market Allocations

Market-level performance hinges on several factors, including occupational demand, supply, and pricing. Over the long term we believe that supply — more specifically constraints on development — predominate, assuming at least a modest pace of population and economic growth. From a strategic perspective, we therefore generally favor the large, coastal, gateway cities (i.e., San Francisco, Los Angeles, New York, Washington D.C., and Boston), which tend to exhibit greater physical and regulatory barriers to new supply.

However, over shorter time periods we believe that occupational demand, driven largely by the local economy, often plays a larger role. Over the next five years, we believe that these will largely consist of low-cost Sunbelt metros that can attract corporate relocations and domestic in-migration (e.g., Texas, Florida, Atlanta, Phoenix, and Nashville) and markets with significant exposure to the technology industry (e.g., San Francisco, Seattle, Portland, Austin, and Boston), in which America enjoys a global competitive advantage (see Exhibit 2).

**EXHIBIT 2: POPULATIONS GROWTH VS. TECH CONCENTRATION**



Source: Moody's Analytics. As of June 2019.

## 2 / Real Estate Fundamentals

A buoyant economy coupled with manageable construction levels supported robust real-estate fundamentals in 2018 and the beginning of 2019. According to NCREIF, the all-property core vacancy rate slipped to 6.1% in the first quarter (four-quarter moving average), its lowest level in nearly 18 years, propelling NOI growth of 4.4% year-over-year (four-quarter moving average).<sup>9</sup> Vacancy rates rested below their 30-year average in every major sector.<sup>10</sup>

There were areas of weakness: Despite low vacancies, retail NOIs stagnated as e-commerce curbed demand for brick-and-mortar space.<sup>11</sup> Rent growth was also soft in a few large apartment and office markets (i.e., Chicago, New York, and Washington D.C.) where job creation was mediocre and supply ramped up.<sup>12</sup> Yet there were also positive surprises: Despite a steady flow of new supply, apartment NOI growth picked up as household formation surged.<sup>13</sup> National office absorption jumped more than 50% in 2018 to nearly a 12-year high, supported by substantial gains in technology-driven markets (e.g., the Bay Area, Denver, and Austin).<sup>14</sup>

In our view, real estate fundamentals are poised to remain healthy in 2019 and likely 2020. Consider the economy, the principal driver of tenant demand (real estate absorption has displayed a 0.86 correlation to gross domestic product (GDP) growth over the past 20 years).<sup>15</sup> July 2019 will mark the longest economic expansion in U.S. history, with records going back to the 1850s.<sup>16</sup> The maturity of this cycle has fostered fears that it may soon run its course. But expansions do not spontaneously implode; recessions require a catalyst, such as an asset bubble (e.g., housing in 2008 and technology stocks in 2001), an inflationary spiral (e.g., the early 1980s), or a supply shock (e.g., the energy crises of the mid-1970s). We believe that the U.S. economy does not exhibit equivalent vulnerabilities today.

That is not to say that the economy is devoid of challenges. It is noteworthy that the yield curve (10-year Treasury yields less 3-month T-Bill rates) has inverted, a signal that has historically foreshadowed recession within one to two years (see Exhibit 3).<sup>17</sup> Headwinds include the fading of last year's fiscal stimulus, the lagged effects of interest-rate hikes, weaker global growth, and trade wars. Yet some of these threats have partially subsided: the Federal Reserve has put further rate hikes on hold and may cut them later this year, and threatened tariffs against Mexico have been rescinded. Moreover, as a relatively closed economy (exports are 12% of GDP, compared with 47% in Germany), the U.S. has historically proved resilient to global turmoil (e.g., the 1998 Asian financial crisis and 2011 European debt crisis).<sup>18</sup>

<sup>9</sup> NCREIF. As of March 2019.

<sup>10</sup> NCREIF. As of March 2019.

<sup>11</sup> NCREIF. As of March 2019.

<sup>12</sup> CBRE-EA. As of March 2019.

<sup>13</sup> NCREIF. As of March 2019.

<sup>14</sup> CBRE-EA. As of March 2019.

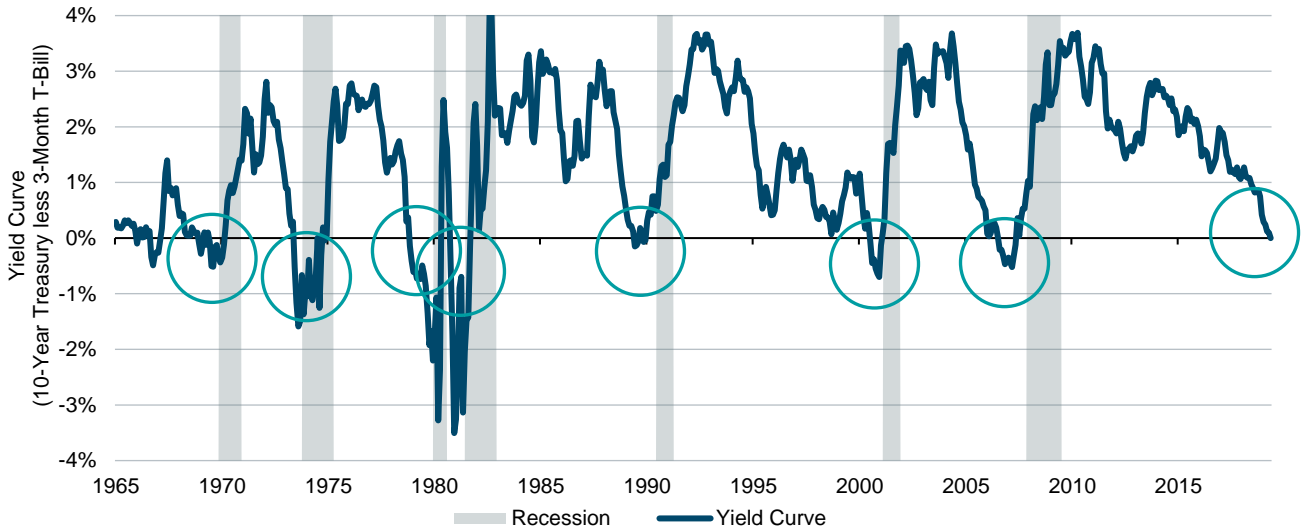
<sup>15</sup> CBRE-EA and Bureau of Economic Analysis. As of March 2019.

<sup>16</sup> National Bureau of Economic Research (NBER). As of June 2019.

<sup>17</sup> Federal Reserve. As of May 2019.

<sup>18</sup> Bureau of Economic Analysis. As of March 2019.

**EXHIBIT 3: YIELD CURVE (10-YEAR TREASURY YIELD LESS 3-MONTH T-BILL) AND RECESSIONS (1965-2019)**



For illustrative purposes only. Past performance is not indicative of future results.  
 Source: Federal Reserve. As of May 2019.

We therefore believe that as in 1998, when the yield curve inverted and the Federal Reserve cut interest rates in response to adverse global developments, the economy will expand for a while longer. However, the inversion does, in our view, suggest that the economy is past its peak, poised to slow, and at greater risk of a downturn after next year. We expect that GDP growth (and job creation) will decelerate from 3.0% (2.7 million) in 2018 to 2.0%-2.5% (1.5-2.0 million) annually in 2019 and 2020. For U.S. real estate, this implies modestly weaker absorption over the next two years, with potential downside risks thereafter. Meanwhile, the supply pipeline appears to be receding. Multifamily and commercial construction (measured relative to GDP) plateaued in 2016 and new starts have drifted lower.<sup>19</sup> Given the construction currently underway, we believe that supply will pull back slightly over the next two years in every sector except Retail, where development is currently almost nonexistent. Lending discipline (banks have generally tightened underwriting standards since 2015 at the behest of regulators) and severe labor shortages (the unemployment rate for skilled construction workers plunged to an all-time low of 3.7% in May 2019) have likely contributed to this unusual, mid-cycle construction slowdown.<sup>20</sup>

Two policy measures introduced in 2018 — a loosening of bank lending regulations and the launch of Opportunity Zone tax incentives — have arguably increased medium-term supply risks. However, as of yet there has been no evident pickup in bank construction financing, and the measured scope of the Opportunity Zone program (qualifying areas cover just 10% of the U.S. population), coupled with labor shortages and cost pressures, should help to contain the risk of oversupply, at least from a macro perspective if not in every market.

Economic growth and moderate supply are expected to keep vacancy rates near current levels through 2020. Tight market conditions should foster rent increases averaging 3% annually. Moreover, given that in-place rents are approximately 10% below market levels, the rolling of leases to higher market rates should provide additional support to NOIs, sustaining growth of 3%-4% annually.<sup>21</sup> Our outlook beyond 2020 is more opaque. Although a trigger for recession is not clearly visible, an inverted yield curve implies that the economic cycle is in a later stage. Thankfully, even if a recession were to materialize, we believe that the real-estate fallout should be relatively mild provided that job losses are not overly severe (as in the Global Financial Crisis) and supply does not run amok (as in the early 1990s).

<sup>19</sup> Bureau of Economic Analysis. As of March 2019.

<sup>20</sup> Federal Reserve (lending standards) and Bureau of Labor Statistics (construction unemployment). As of May 2019.

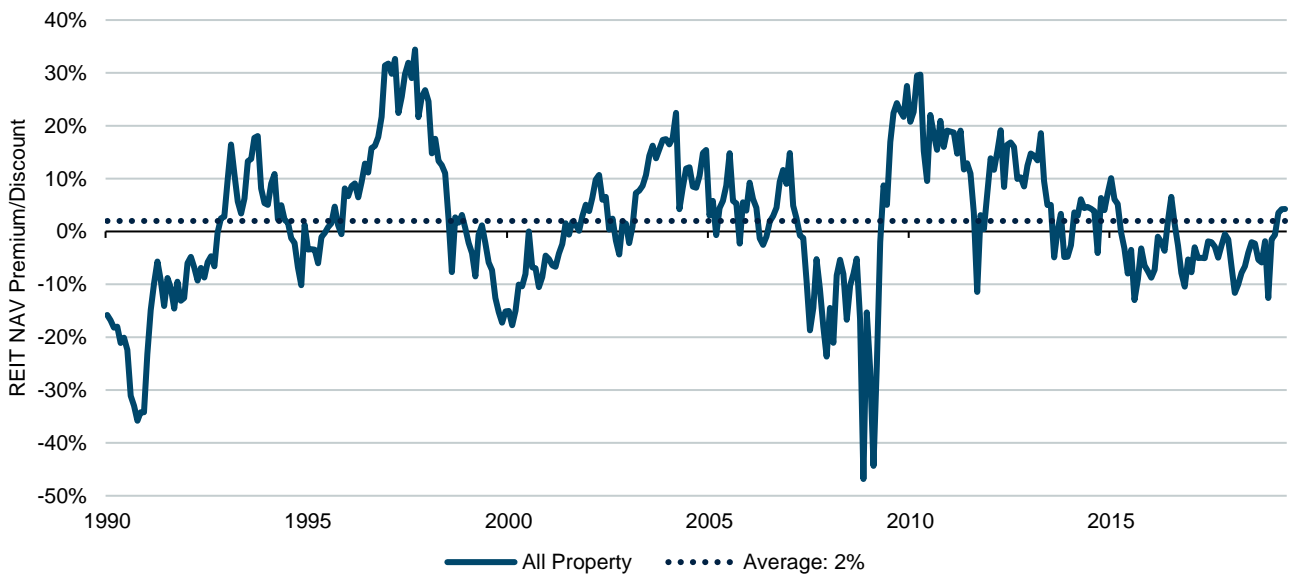
<sup>21</sup> Altus. As of March 2019.

Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

## 3 / Real Estate Capital Markets

After a turbulent fourth quarter of 2018, financial markets staged an extraordinary rebound in the first quarter of 2019, driven, in our view, by shifting perceptions around Federal Reserve policy (pushing down benchmark interest rates) and improving expectations for the U.S. economy (tightening risk premiums). Within real estate, multifamily and commercial mortgage rates dropped nearly 60 basis points and cap rates drifted lower. Listed real estate investment trusts (REITs) jumped 16% to trade at a premium to net asset value (NAV) for the first time since 2015, although discounts persisted for many core sectors and companies (see Exhibit 4).<sup>22</sup>

EXHIBIT 4: REIT PREMIUM/DISCOUNT TO NAV (1990-2019)



Source: Green Street Advisors (GSA). As of May 2019.

Real estate transaction volume of \$106 billion in the first quarter of 2019 was down 11% from a year earlier, but abstracting from the quarterly noise, volume was up 12% on a trailing four quarter basis to \$561 billion, nearly a record high.<sup>23</sup> Listed REITs, significant net sellers of real estate since 2015, edged back into the market in the first quarter of 2019. Foreign investors were also net buyers, although cross-border activity slowed sharply to its lowest level in seven years. Domestic institutional and private investors were marginal net sellers for the quarter. Flows into NFI-ODCE (Open End Diversified Core Equity) funds were flat on a trailing four-quarter basis.<sup>24</sup>

Real estate debt performed well at the beginning of 2019. Senior mortgages produced total returns of 5.9% (trailing four quarters) in the first quarter, the highest level since 2016.<sup>25</sup> While returns on senior mortgages were below those of core

<sup>22</sup> Green Street Advisors. As of April 2019.

<sup>23</sup> Real Capital Analytics. As of March 2019.

<sup>24</sup> NCREIF. As of March 2019.

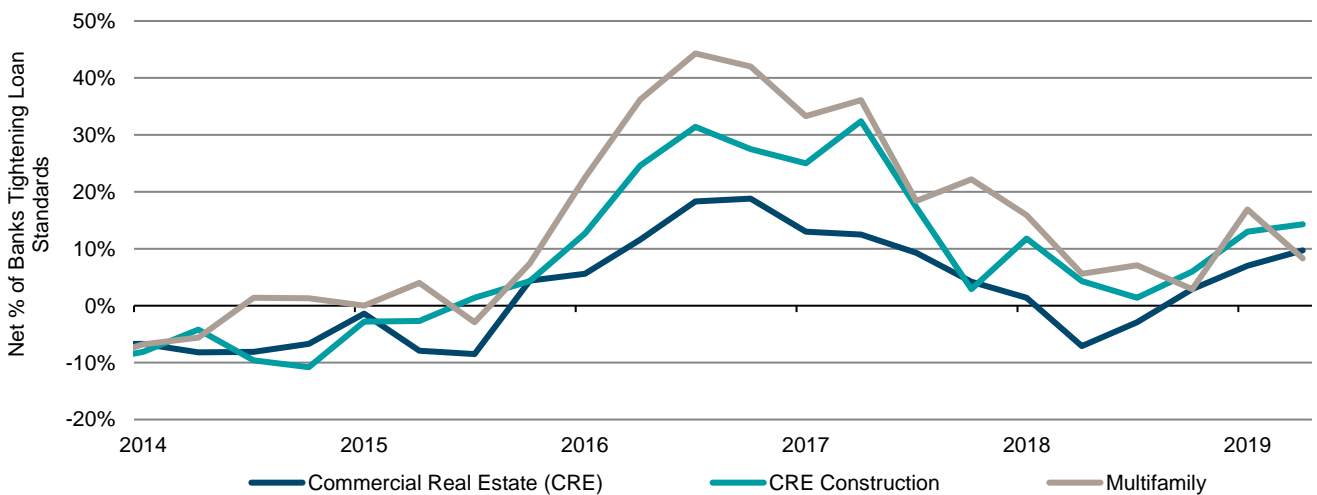
<sup>25</sup> Giliberto-Levy Monitor. As of March 2019.



equity real estate, the gap (90 basis points) was at its lowest since 2010.<sup>26</sup> Returns on high-yield mortgage debt were also strong, at 11.2% (trailing four quarters) in the fourth quarter of 2018 (the latest data available).<sup>27</sup> We believe two factors buoyed real estate debt returns: First, mortgage rates declined, particularly after the Federal Reserve signaled at the end of 2018 that it intended to put further interest-rate hikes on hold.<sup>28</sup> Second, real estate fundamentals remained robust, pushing delinquency rates to cyclical (in the case of CMBS) and in some cases historic (insurance and bank loans) lows.<sup>29</sup>

Within the debt space, the stock of outstanding mortgages increased 6.0% (year-over-year) in the first quarter of 2019, nearly the slowest pace since 2014, when the market was still recovering from the financial crisis.<sup>30</sup> Government-sponsored entities and life insurers expanded their mortgage books by 10% and 11%, respectively, while commercial mortgage-backed securities (CMBS) debt rose modestly (3%) after falling almost continuously since 2008. But growth in bank mortgage debt (more than 50% of outstanding mortgages) was at its slowest pace (4%) since turning positive in 2013. Ironically, despite the enactment of Dodd-Frank reforms loosening real-estate lending rules in May 2018, a majority of banks subsequently reported a tightening of real-estate lending standards through the second quarter of 2019 (see Exhibit 5).<sup>31</sup> In March 2019, average loan-to-value ratios hovered around 60%, near their lowest levels on record (since 2004).<sup>32</sup>

**EXHIBIT 5: BANK LENDING STANDARDS (2014-2019)**



Source: Federal Reserve. As of June 2019.

We believe that capital markets will remain liquid and broadly supportive of valuations through 2020. Despite low unemployment and rising wages, inflation remains under control, thanks to productivity gains and a strong dollar. In our view, modest inflation and low foreign interest rates will keep a lid on U.S. interest rates, consistent with expectations embedded in the yield curve. Low interest rates are a positive for real estate, preserving its yield advantage relative to other investments, enhancing leveraged returns, and reducing foreigners’ currency hedging costs. Accordingly, we believe that transactions markets will remain active (about \$500 billion annually) and that cap rates will remain broadly stable through 2020, with downward pressure in some areas (e.g., Industrial) offsetting upward pressure in others (e.g., Retail).

<sup>26</sup> NCREIF. As of March 2019.

<sup>27</sup> Giliberto-Levy Monitor. As of March 2019.

<sup>28</sup> Real Capital Analytics. As of March 2019.

<sup>29</sup> Federal Reserve (banks), American Council of Life Insurers (insurance), Moody’s (CMBS). As of March 2019.

<sup>30</sup> Federal Reserve. As of March 2019.

<sup>31</sup> Federal Reserve. As of March 2019.

<sup>32</sup> Real Capital Analytics. As of March 2019.

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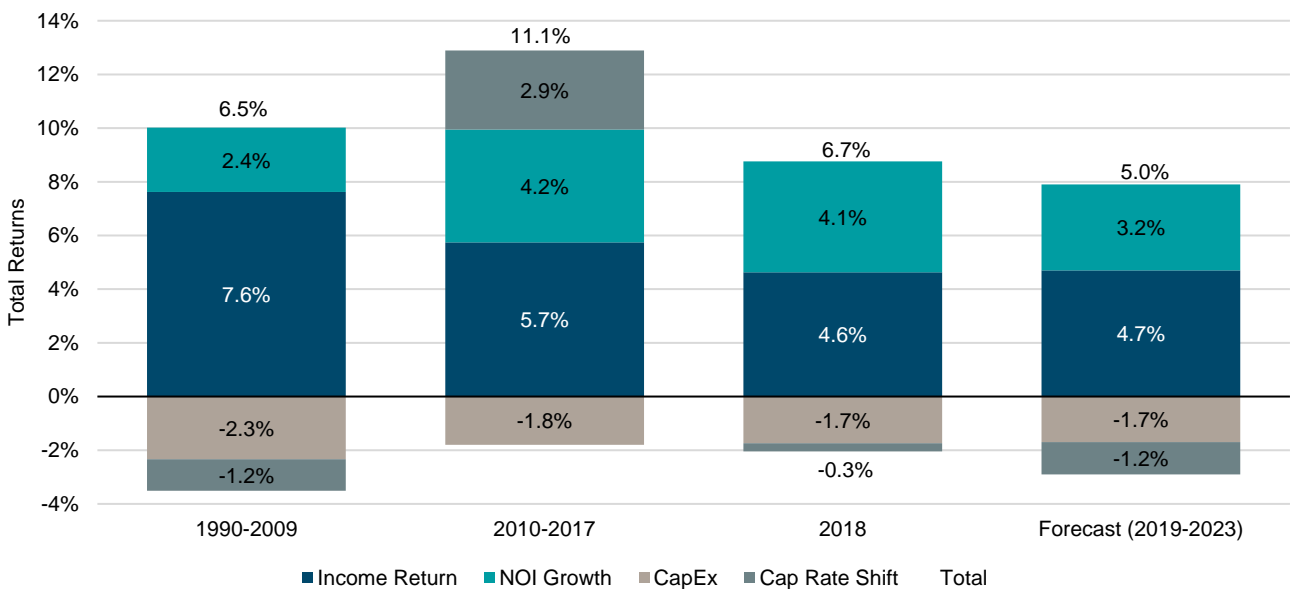
## 4 / Real Estate Total Returns

Unlevered core real estate produced total returns of 6.8% (trailing four quarters) in the first quarter of 2019, down from the double-digit levels coming out of the crisis.<sup>33</sup> Yet today's returns are arguably of higher quality, driven almost entirely by current yield and NOI growth (a byproduct of low vacancy rates) rather than cap rate compression, which cannot be sustained indefinitely.

We believe that these dynamics will remain largely intact for the time being. Peaking supply should keep vacancy rates near today's historically low levels. Tight market conditions should sustain NOI growth of 3%-4% annually, nearly double the rate of inflation. Financial markets are more difficult to predict, but low inflation and interest rates — provided that they are coupled with a stable economy — should support capital inflows. This backdrop is consistent, we believe, with total returns averaging about 6%-7% annually in 2019 and 2020.

This return profile might continue beyond 2020. However, recognizing the risks to the economy signaled by the yield curve, the possibility of a medium-term slowdown is coming into view. In the event of a recession, real estate would not escape unscathed. Nevertheless, we believe that it is well positioned to weather a storm, for several reasons: First, supply is generally under control. Second, despite historically low cap rates, valuations are not egregious relative to interest rates. Third, the industry is not saddled with an unsustainable debt burden. Accordingly, we believe that real estate returns should hold up well on a relative basis.

**EXHIBIT 6: NPI TOTAL RETURNS (1990 – 2023)**



Source: NCREIF and DWS (calculations and forecasts). As of June 2019. No assurance can be given that any forecast or target will be achieved.

<sup>33</sup> NCREIF. As of March 2019. Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

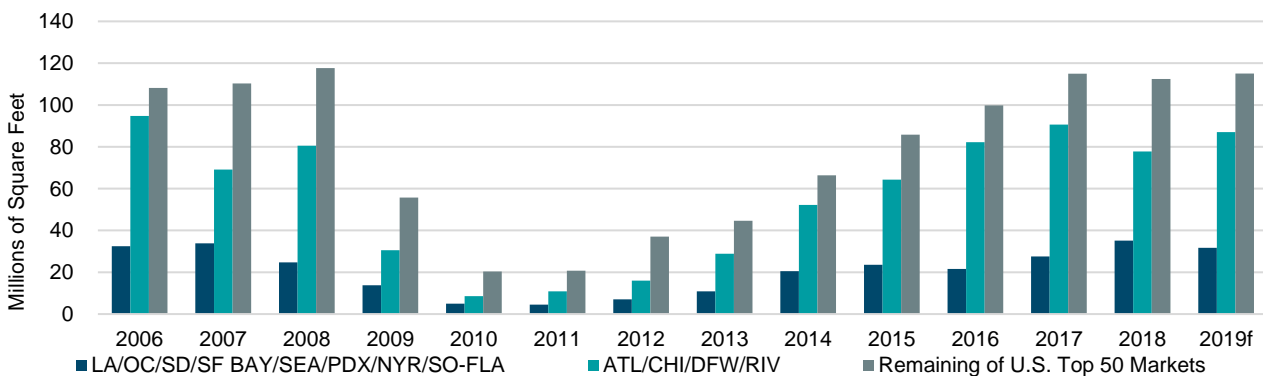
# 5 / Industrial Outlook and Strategy

## 5.1 Current Conditions

The U.S. industrial property sector continues to perform well with healthy demand trends absorbing available supply, sustained low availability rates nationally and across most markets, and above average rent growth during the past year (about 4%). Importantly, strong occupancies and sustained rent growth over the past five years (about 26% in total) should continue to support elevated NOI growth for core industrial owners. The national availability rate ended the first quarter of 2019 at 7.1%, 330 basis points below the 20-year average. Net absorption outpaced construction deliveries again in 2018, totaling 255 million and 235 million square feet, respectively. Preliminary figures from the first quarter of 2019 indicate that new construction totaled about 44 million square feet, outpacing absorption of about 38 million square feet. Quarterly supply and demand figures can be choppy, but annual figures have been very stable at healthy levels (around 1.5% to 1.7% of stock annually for the past two years). Only two of 26 markets in our investable universe posted negative absorption in 2018, amounting to less than one million square feet (on a base of nearly 10 billion square feet). Consistent with the past two years, developers have faced increasing land, materials and labor costs – delaying and suppressing the pace and level of deliveries in some markets. All 26 metros in our investable universe continue to have availability rates well below their long-term averages.

The performance prospects for the U.S. industrial market are favorable on both an absolute and relative basis. National supply and demand trends have been fairly stable over the past two years with few signs of weakness across markets. That said, we are beginning to see greater variations in performance between markets and/or market types. Larger development pipelines in the primary inland warehouse hubs and in a broader set of regional and local markets, have fueled this divergence (despite strong demand across most markets). Elevated supply can create more competitive leasing environments, moderate potential rent gains, and potentially greater vacancy risks in the event of a cyclical turn. As land constraints have risen in prime coastal markets, development has pushed to alternate regional locations, some with less favorable local drivers and smaller labor pools. We do not write-off the national warehouse hubs or other high quality locations, but we do believe that varied fundamentals across locations should guide investment strategy to the healthiest metros and submarket locations. The high barrier market group (see dark blue bars in Exhibit 7) has sustained lower average availability rates and higher rent growth, as well as higher total returns in NPI, over the past five years, and we believe that this dynamic will continue. It is noteworthy that lower barrier markets such as Atlanta, Chicago, Dallas and Riverside continue to dominate on the supply side, comprising about 35% of national development in 2018.<sup>34</sup>

**EXHIBIT 7: DEVELOPMENT PATTERNS ACROSS SELECTED MARKET GROUPS**



ATL=Atlanta, CHI=Chicago, DFW=Dallas, RIV=Riverside, LA=Los Angeles, OC=Orange County, SD=San Diego, SF BAY=San Francisco Bay Area, SEA=Seattle, PDX=Portland, NYR=New York, SO.FLA= South Florida.  
 Source: CBRE-EA and DWS. As of March 2019. No assurance can be given that any forecast or target will be achieved.

<sup>34</sup> DWS, CBRE-EA, and CoStar. As of May 2019. Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

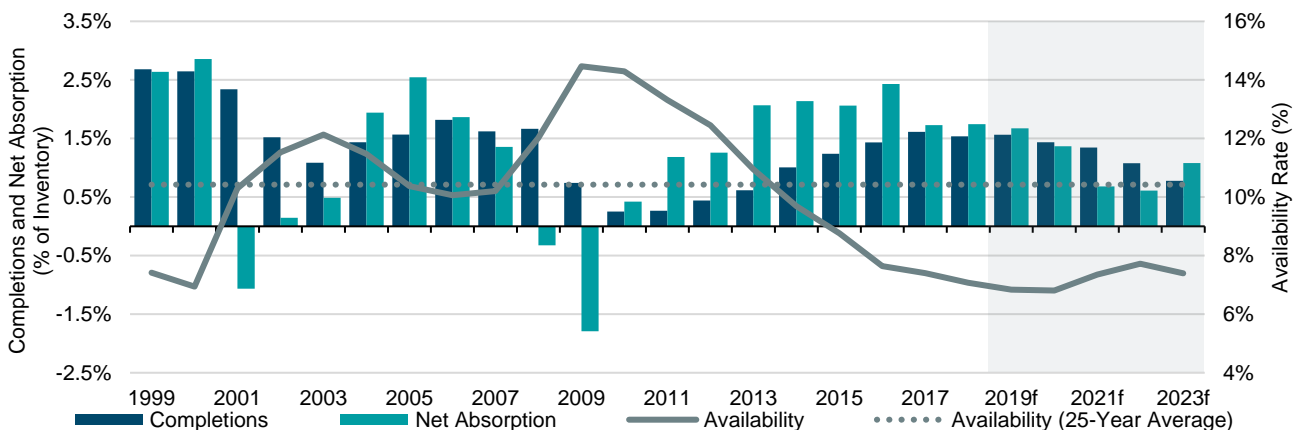
Healthy market fundamentals and intense investor demand continued to support very strong investment performance, with one-year total returns in the first quarter of 2019 of 14.0%, a staggering 720 basis points above the NPI average.<sup>35</sup> The industrial property sector has outperformed the NPI average by 460 basis points annually over the past five years, returning 13.7%. Investor demand continued to compress going-in yields across a greater number of markets, fueling outsized total returns in some smaller, late recovery markets. We maintain a favorable outlook for the sector due to relatively good NOI growth prospects, but performance is not uniformly strong across markets and total returns prospects are expected to moderate closer to the index in the coming few years.<sup>36</sup>

## 5.2 Outlook and Strategy

Our outlook for the U.S. industrial market remains favorable over the next two years and perhaps longer on a relative basis due several factors; current low vacancy rates, disciplined construction pipeline, relatively persistent demand drivers (population and consumption growth), plus resilient demand from e-commerce, and constraints close to large population centers. These factors position the sector for a good cycle. It is notable, however that demand levels have moderated recently, compared to early in the recovery cycle (2013-2016). This downshift seems appropriate given a maturing economic cycle. Prior years demand levels were likely boosted by some level of pent-up demand exiting the severe recession. Additionally, we believe that retailers and logistics providers have become more efficient in their warehouse usage.

We expect that lower-barrier locations in the South and Midwest will experience more supply competition and less rent growth than higher barrier locations in the West and Northeast regions. These areas are generally underserved by modern warehouse and can absorb new supply as a function of replacement stock. Larger supply-constrained markets have experienced some moderation as local demand drivers have eased, but lower vacancy rates have also limited absorption potential. National supply and demand trends are forecast to reflect lower availability in the near term, but a more pronounced cyclical shift, where construction reaches parity with demand in 2020 and then outpaces it in 2021 and 2022 (see Exhibit 8).

**EXHIBIT 8: INDUSTRIAL NET ABSORPTION AND COMPLETIONS % OF INVENTORY AND AVAILABILITY RATE (1999 – 2023)\***



\* Total for U.S. Sum of Industrial Markets (CBRE-EA)  
 Source: CBRE-EA (History) and DWS (Forecast). Data as of June 2019.  
 Note: f = forecast. Past performance is not indicative of future results. No assurance can be given that any forecast or target will be achieved.

We believe that favorable investment performance is available over the next several years, especially relative to other sectors, but the economic outlook includes warning signs that we are nearing the end of a cycle. Even a relatively soft landing would

<sup>35</sup> NCREIF. As of March 2019.

<sup>36</sup> DWS and NCREIF. As of March 2019.

Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

dampen property market performance. Despite rising macro risks, we believe industrial demand drivers should weather this cycle relatively well.

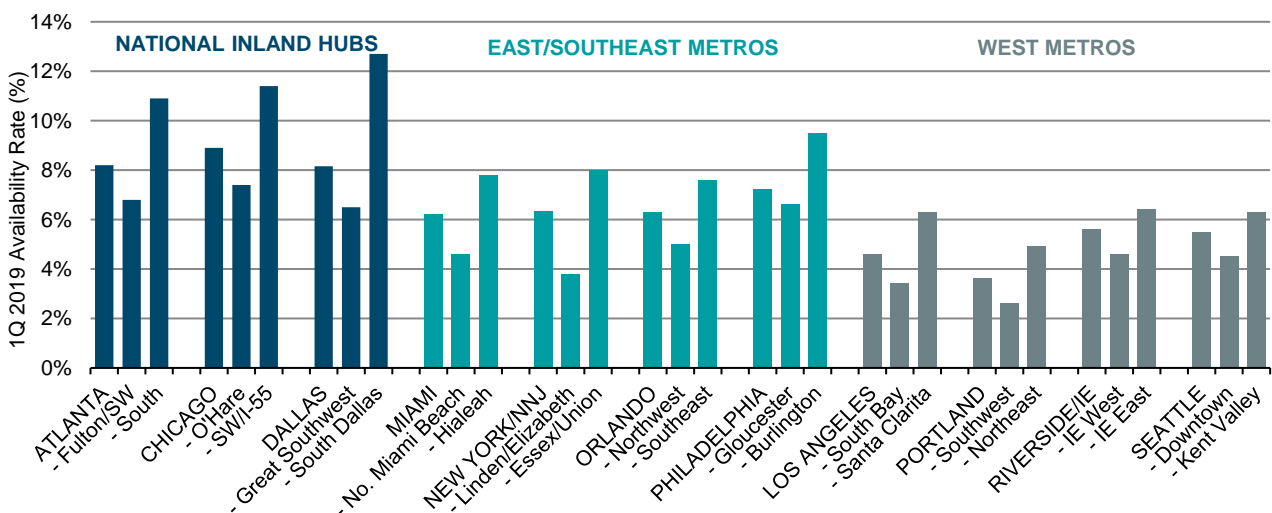
Persistent development and moderating demand in the second half of our outlook is expected to moderate rent growth potential especially in the markets with the greatest supply pipelines. National totals remain within historical norms, but there is a potential for more competitive conditions across a greater number of markets compared to the past few years. New development is expected to add about 1.5% of stock per year through 2020. Demand is forecast to average about the same. Later in the forecast, the outlook represents a loss of traditional drivers plus some impairment of e-commerce drivers, resulting in total demand of only 0.6% annually in 2021 and 2022. We estimate that e-commerce related activity (and resulting supply chain reconfiguration in major population centers) has stimulated about one-third of total demand in this cycle. Our late-cycle outlook includes some demand resilience on that front, compared to prior cycles.

**THE CENTRAL THEMES THAT ARE SHAPING OUR 2019 INDUSTRIAL INVESTMENT STRATEGY:**

Property and market segmentation are crucial considerations in the coming year, as the tide of fundamentals improvements and capital markets gains that lifted nearly all markets in past years will likely be less uniform in the future. Beyond diligent market and asset selection, we believe targeting the locations within markets that have strong current fundamentals and also have historically had competitive advantages over other locations. The expanding edges of lower-barrier markets may carry greater supply risks in coming years. Functional warehouse facilities at infill locations of densely populated markets stand to benefit not only from future economic growth but also their proximity to local industry, infrastructure and labor.

Exhibit 9 illustrates recent availability rates across several markets and submarkets. It shows that fundamentals can differ greatly across markets, but also between individual submarket locations. We believe that targeting infill locations with greater constraints (structurally lower historical availability) will lead to better relative performance. This sample of markets reflects tighter metro market conditions in the west, but highlights opportunities in constrained locations of lower-barrier metros. We expect that the dynamics favoring strong fundamentals today will endure.

**EXHIBIT 9: AVAILABILITY RATE BY METRO AND SUBMARKET (1Q 2019)**



Source: CBRE-EA. Data as of March 2019. No assurance can be given that any forecast or target will be achieved.

Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

- **Asset Fit:** It is important to target appropriate physical features of industrial real estate for the market in which it sits. For instance, late-1990s vintage, large-bay warehouse buildings in the Los Angeles - South Bay submarket would likely fare better than the same building in a West or Southwest suburban location of Chicago, as a greater proportion of buildings in Chicago would have better functional features. In this cycle, several features seem to have increased in importance, such as lower site coverage (with parking and loading implications), efficient circulation and trailer storage for bulk warehouses, and access to an appropriate labor pool. We believe that judicious asset targeting will garner better rent and occupancy prospects in a full cycle.
- **Gateways:** These markets, including the Los Angeles and New York regions, as well as Seattle and Oakland should continue to perform well in the near term. The development pipeline has been active in Seattle and the New York region, but demand has also been very strong, so the markets have maintained near-cycle low vacancy rates ranging between 1% and 4%. Tight market conditions leave expanding or new tenants with few choices. Future construction will also likely get more expensive due to increasing land and labor costs.
- **National Distribution Hubs:** The major national distribution hubs are performing well compared to historical averages, but new supply competition will serve to dampen future occupancy gain and rent growth. Atlanta is the lone market weight choice in this group, but the bulk warehouse segment here is growing more competitive. In our view, more disciplined investing may be warranted here, limited to new Class A assets in top-tier submarkets.
- **Regional Hubs:** Central Pennsylvania markets of Allentown and Harrisburg performed well early in this cycle. Recently, Harrisburg has moderated, reflecting more competitive supply conditions at the expanding edges of the metro and in adjacent areas. The region should continue to benefit from high demand and a dearth of modern logistics facilities in the Northeast and mid-Atlantic regions. We expect that regional linkages will continue to benefit these markets, providing for stable market-return performance.
- **Local Markets:** Local markets with strong economies and important technology drivers, as well as healthy housing markets should perform well. In this group we prefer Portland, San Diego, Denver, San Jose/San Francisco and Miami/Fort Lauderdale. Charlotte and Orlando, as key southeast locations are boasting strong economic growth and in Orlando's case, room for above average future rent growth.
- **Class A Bulk Warehouse:** Prices for large stabilized Class A bulk warehouse properties have increased markedly in recent years, in some cases surpassing replacement cost. These assets, leased long-term to credit tenants, can provide stable cash flow, but may underperform NPI averages. Target Class A assets in core submarkets with higher land values and where in-place rents are below current market levels.
- **Leasing-up / Development:** Elevated macro-economic risks and supply competition should make investors more selective about timing beyond 2020. We believe that speculative development will be responsive to rising risks and moderate in coming years, but supply risks have risen in Chicago, Denver, Dallas, Houston and Atlanta. The demand/supply ratios are more favorable in New York/New Jersey, South Florida, Southern California, San Francisco Bay Area, Seattle and Portland. The expanding edges of Central Pennsylvania are also at risk of experiencing future imbalances.
- **Small-Bay and Light Industrial:** Prospects are very good for smaller multi-tenant warehouse properties, particularly in the Gateways and strong local markets, as supply has been limited and vacancy rates are at all-time lows for this segment. Despite being older and carrying some degree of functional obsolescence, smaller properties (less than 300,000 square feet in size) have outperformed larger ones in the NPI over the past few years, achieving stronger NOI growth as well.

# 6 / Apartment Outlook and Strategy

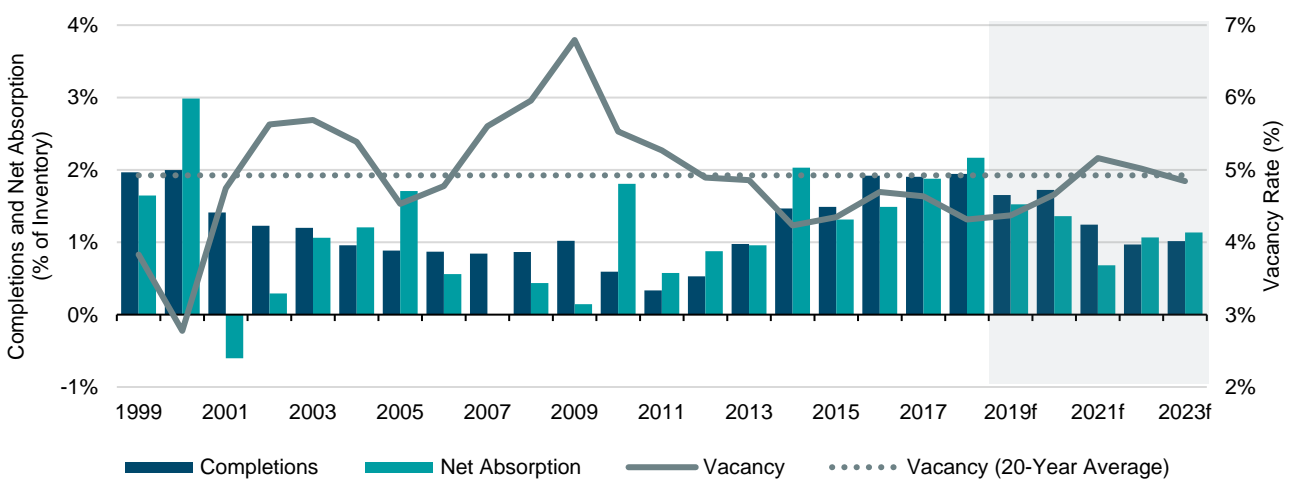
## 6.1 Current Conditions

Apartment fundamentals are healthy. High levels of construction over the past few years have heightened concern regarding oversupply; however, demand has mostly kept pace with inventory growth (see Exhibit 10). Skilled labor shortages and rising material costs continue to delay new construction, pushing deliveries into future years and thus helping the market stay in balance. 2018 was a prime example of this trend, as we likely observed the peak of the current construction cycle, and that was easily offset by the best year of apartment absorption since 2000. The depth of renter demand was visible across the country, especially in DWS’s Investable Markets (“Investable Markets”)<sup>37</sup>, which saw absorption totaling just over 243,000 units. That figure represented a 17.7% increase year-over-year versus 2017. Favorable demographics and rising home prices have also continued to support renting over owning. This sustained demand resulted in a U.S. vacancy rate of just 4.5% in the first quarter of 2019<sup>38</sup>, stabilizing near the cyclical low achieved in mid-2015.

While the structural drivers are strong, renter demand is expected to decline as the economic expansion matures. The protracted completion schedule should allow for a gradual rise in vacancy rates. We expect the overall vacancy rate to be in line with its long-term average of 5.1% by the middle of the forecast before recovering as construction recedes.

Debt and equity capital remain abundant, demonstrating that investor appetite for apartments mostly continues unabated. While investment in the sector is expected to remain robust, it will likely temper somewhat as higher borrowing costs and moderating NOI growth result in lower total returns. Land prices and construction costs also continue to rise. As a result, multifamily starts and permits have declined from their cyclical peaks (down 21.8% and 16.5%, respectively),<sup>39</sup> thus bringing needed discipline to the market.

**EXHIBIT 10: APARTMENT NET ABSORPTION AND COMPLETIONS AS % OF INVENTORY AND VACANCY RATE (1999 – 2023)\***



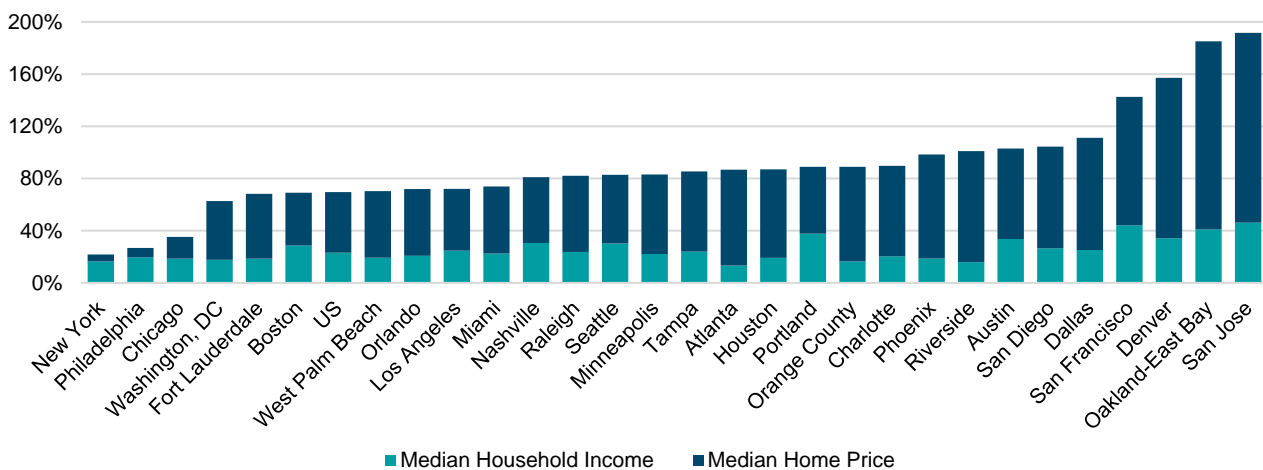
\*DWS’s 29 Apartment Investable Markets  
 Source: CBRE-EA (history); DWS (forecast). Data as of June 2019.  
 Note: f = forecast. Past performance is not indicative of future results. No assurance can be given that any forecast or target will be achieved.

<sup>37</sup> DWS: Apartment Investable Markets includes 29 major metros in the U.S.  
<sup>38</sup> CBRE-EA. As of March 2019.  
<sup>39</sup> Moody’s Analytics. As of March 2019.  
 Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

The apartment sector has averaged 4% annual effective rent growth since 2013, peaking at 6.5% in the third quarter of 2015. While rents have moderated since then, the market continued to show resilience in the first quarter of 2019. Solid fundamentals resulted in rent growth of 3.4% year-over-year across DWS’s investable universe. This rent growth is not, however, consistent across product types. Strong rent growth has been concentrated in garden-style apartments that have seen limited new supply in suburban markets. Most downtown submarkets continue to underperform due to the oversupply of high-rise product and concessions effectively capping rent growth at levels well below inflation. We expect that effective rent growth will average 2.5% annually through 2023, 50 basis points shy of the sector’s historical average.

The cost of renting versus owning continues to favor apartments as home prices have appreciated at a faster rate than rents. U.S. home prices have grown 47% cumulatively since 2008, primarily driven by a lack of new housing, especially entry-level homes.<sup>40</sup> Developers are building more expensive homes as the cost to build continues to increase. Soaring land prices, skilled labor shortages, and rising material costs are all contributing to this trend. While home prices have surged above pre-recession peaks, household income growth has failed to keep pace (see Exhibit 11), putting homeownership out of reach for many young renters (especially those with student loans). Higher mortgage rates are also lowering borrowing capacity. For every 25 basis point movement upward in mortgage rates, the amount a person can afford to borrow must decrease by 3% to keep monthly payments equal. This lack of affordability, combined with limited new construction and a reduction of federal homeownership tax benefits, should all help support apartment demand.

**EXHIBIT 11: CUMULATIVE GROWTH OF HOUSEHOLD INCOME AND HOME PRICES BY INVESTABLE MARKET (2008 – 1Q 2019)**



Source: Moody’s Analytics and DWS. Data as of March 2019. Past performance is not indicative of future results.

Headwinds facing first time homebuyers, as well as demographic trends, continue to especially promote suburban apartment demand in the near term. Millennials continue to move out of cities in search of more space to raise young families, while paying down student debt and saving for down payments on homes. This cohort typically wants high-quality housing that maximizes space, offers outdoor living, is located near highly-ranked schools, and provides access to employment centers. Proximity to walkable neighborhoods and a highly-amenitized, mixed-use town center is also important. Another demographic

<sup>40</sup> Moody’s Analytics. As of March 2019.



shift, albeit still in an early phase, is the move by some Baby Boomers to downsize from large homes to apartments, motivated by a desire to eliminate high maintenance costs and property taxes, gain flexibility to be closer to children and grandchildren, and as empty nesters, enjoy a greater sense of community.

Average apartment cap rates across the quality spectrum have remained relatively stable around 5% for the last five years,<sup>41</sup> but continue to compress gradually. Fundamentals remain weak in many downtown submarkets, yet they have not deterred investors who continue to seek trophy properties in prime urban markets. We estimate that the average going-in cap rate for Class A urban core product remains in the low-4% range, with many prime stabilized assets trading in the high-3% range. Bolstered by positive demographic trends and limited new construction, garden-style product has seen stable rent growth and persistent cap rate compression, with its spread over mid/high-rise cap rates narrowing to 50 basis points as of the first quarter of 2019, its lowest level since 2010. Low cap rates, coupled with decelerating NOI growth, has resulted in total returns ranging from 5.5% to 6.0% for Class A properties in prime locations.

Annual NCREIF Property Index (NPI) total returns for the apartment sector remained fairly stable at 5.9% (trailing four quarters) in the first quarter of 2019 – a decline of 46 basis points from a year earlier.<sup>42</sup> Western and Southeastern metros have been the primary outperformers, fueled by strong economic and demographic drivers: Riverside, Orange County, Orlando, Phoenix, Tampa, and Oakland all produced total returns of 8% or more over the past year. In contrast, several slower-growth Midwest and East Coast markets, such as Chicago, New York, and Philadelphia, along with Portland and San Francisco, exhibited total returns of less than 4%. Among apartment property subtypes, garden-style apartments were once again the top performers, returning 8.6% as of the first quarter of 2019. Despite their popularity with investors, high-rise properties continued to lag behind, returning 4.6% over the same time period, well below the subtype's five-year average annualized return. In our view, high-rise properties will likely continue to underperform in 2019 and 2020 as significant supply gets delivered to the urban core.

## 6.2 Outlook and Strategy

Strong job growth, rising home prices, and favorable demographics should continue to sustain healthy renter demand in the near term. More than 14 million young adults nationwide — or 21.9% of people ages 23 to 37 — live with their parents, up from 12.7% in 2000.<sup>43</sup> This represents a large source of untapped demand for current and future housing supply. Accelerated job creation in 2018 drove the unemployment rate of young adults between ages 20 to 34 to a 48-year low of 4.5%.<sup>44</sup> With two-thirds of this age group living in rentals, they are a dominant force supporting apartment demand, and the strong job market will likely empower more of them to move out on their own.

Despite starts declining, construction already underway is expected to push vacancy rates modestly higher. New deliveries to the Investable Markets are projected to average over 194,000 units per year in 2019 and 2020, well above their long-term average of 115,000 units per year. Upward pressure on vacancies is expected to cause rent growth to moderate further, though we still project rent growth to average 2.7% per year over the next two years. New supply is expected to recede in the outer years of the forecast, placing fundamentals in balance and resulting in vacancy rates and rent growth in line with their long-term averages of 5.1% and 3%, respectively.

Many of the apartment markets that experienced the strongest rent growth coming out of the Global Financial Crisis remain among the weakest (see Exhibit 12). These metros are also some of the largest, and have therefore had an outsized effect on national performance. In the first quarter of 2019, early recovery markets like Chicago, Dallas, Washington D.C., and New York all trailed the U.S. average. On the other hand, regional markets like Orlando, Riverside, Atlanta, Phoenix, Tampa, and San Diego all exceeded the U.S. average.

<sup>41</sup> Real Capital Analytics and Altus. As of March 2019.

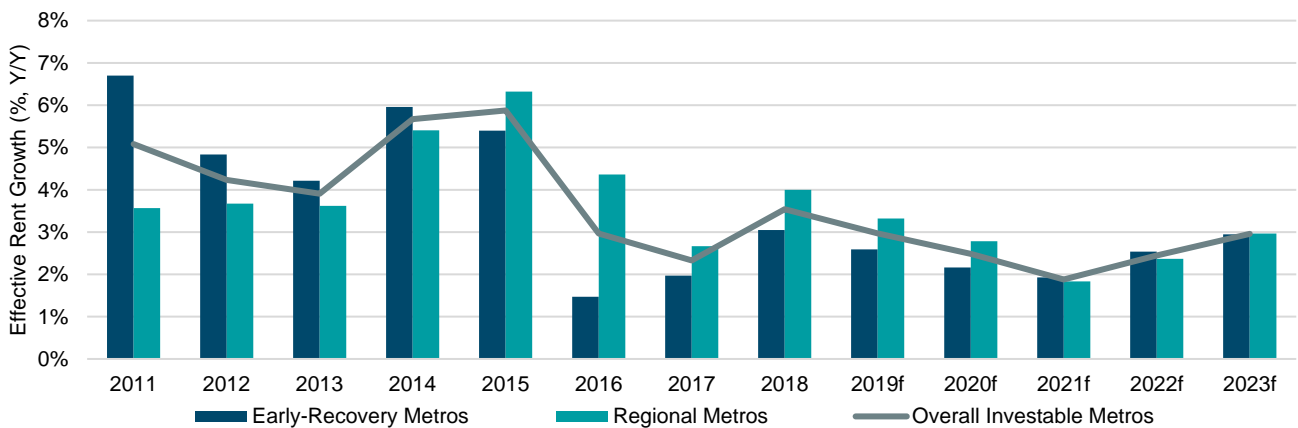
<sup>42</sup> NCREIF. As of March 2019.

<sup>43</sup> Zillow. As of May 2019.

<sup>44</sup> Moody's Analytics. As of March 2019.

As many large coastal markets are exhibiting decelerating rent growth, the late-recovery Sunbelt and smaller West Coast markets, particularly in the suburbs, should continue to bolster national rent growth over the next several years. The factors that are driving economic growth – favorable demographics, better workforce quality, lower cost of living, and pro-business climate – are expected to remain in place. These economies are also much more diversified now, giving investors the confidence to move out on the risk spectrum in search of higher total returns. Metros such as Riverside, Orlando, Phoenix, and Tampa are expected to outperform based on strong job growth and favorable demographics. Houston is expected to outperform driven by a recovering job market and disciplined supply pipeline. Also, given the vibrancy of their respective tech-driven economies, Austin and San Jose should both continue on their upward growth trajectories.

**EXHIBIT 12: EFFECTIVE RENT GROWTH (2011 – 2023)**



Source: Axiometrics and DWS. Data as of June 2019.

Note: f = forecast. Past performance is not indicative of future results.

Early-Recovery Metros: Austin, Boston, Chicago, Dallas, Denver, Houston, Los Angeles, New York, Oakland, Philadelphia, San Francisco, San Jose, Seattle, Washington DC.

Regional Metros: Atlanta, Charlotte, Fort Lauderdale, Miami, Minneapolis, Nashville, Orange County, Orlando, Phoenix, Portland, Raleigh, Riverside, San Diego, Tampa, West Palm Beach.

Slowing rent growth and rising vacancy, combined with very low yields, will likely limit the apartment sector’s ability to produce outsized total returns. Given that many prime apartment markets are fully valued, attractive investment opportunities remain limited. Although we believe the prime markets should be viewed as strategic long-term performers, elevated pricing in these locations should continue to constrain total returns in the near term. While certain markets like Miami and Portland are not considered target markets currently, we should bifurcate expected performance within the Investable Markets between downtown and suburban. We believe investors will likely continue to outperform the index in suburban markets with limited new supply, particularly with assets that are near highly-rated schools, public transit, employment centers, and a well-amenitized town center. Conversely, assets in downtown urban core submarkets will likely continue to underperform the index due to oversupply, low cap rates, and limited NOI growth in the near term.

The central themes that are shaping our apartment strategy include:

- Urban Core Remains in Play, but Expect Near-Term Underperformance:** Supply pipelines for Class A, luxury high-rise apartments remain robust in most prime urban core markets. While construction delays are helping many of these markets manage the flow of new luxury product, it is important to exercise discipline where oversupply remains a concern, rent growth is flat or negative, and yields are low. The presence of concessions in such markets, often one to two months of free rent, to lease vacant units has effectively put a sub-inflationary cap on rent growth. With NOI growth weak and cap rates low, this will likely lead to continued underperformance. Only the best-located properties with unique amenities should be considered. A focus on acquiring properties should be considered that offer an urbanized lifestyle with proximity

to grocers, parks/trails, and nightlife to help distinguish themselves from their competitive sets. If capital markets adjust to softening fundamentals in the urban core, there may be opportunities to acquire prime assets.

- **Renovation Strategy Flashing Red:** The window to execute a successful renovation strategy in order to achieve higher yields is almost closed. Due to sustained investor demand for Class B product late in the cycle, cap rates on these properties have greatly compressed, diminishing the attractive premium over Class A product. Rising construction costs and land prices have also significantly increased the risk of this strategy, given the large capital expenditures required for upgrading properties of this vintage. The ability to earn an acceptable return on cost is largely dependent on achieving sizeable rent premiums, a difficult task in this slowing NOI growth environment. Therefore, it is critical to understand the kinds of renovations for which residents are willing and able to pay a premium, so as to avoid over-improving properties and minimize cash flow volatility.
- **Fundamentals and Demographics Continue to Support Suburban Strategy:** Limited new construction in suburban markets, coupled with increasing demand for more space from ageing Millennials, has helped sustain garden-style apartment performance. While homeownership is still the goal, the relatively more affordable option in the near term is to rent apartments, as student debt and limited savings make it difficult to absorb rising home prices. Also, given that many jobs currently remain in the urban core, there is a strong preference for a shorter commute, both to work and to urban lifestyle options, amongst this renter cohort. To capitalize on these trends, suburban properties should meet very specific investment criteria, foremost being that they should be in highly-rated school systems, have access to public transit, have proximity to employment, and be located near a highly-amenitized town center.
- **Student Housing Remains Attractive Late in the Real Estate Cycle:** Over the long term, cap rates and NOI growth for Class A student housing and Class A apartments should deliver similar returns (assuming no large differences in capital expenditures). However, what separates student housing is that it is less cyclically sensitive than Apartments, because both cap rates and NOI growth are less volatile. Therefore given that we are in the mature phase of the real estate cycle, where rent growth has moderated and supply levels remain elevated for market-rate apartments, the diversification benefits and steady cash flow profile of student housing become even more compelling. Capital continues to flow into this asset class because it offers potential downside protection during any slowdown in the U.S. economy. This sustained demand for student housing has led to continued cap rate compression, with core, Class A properties at large Tier 1 universities currently trading at cap rates in the low- to mid-4% range, in line with Class A market-rate apartments. Strategically, investments in this sector should target the current supply-demand imbalance at Tier 1/Power 5 universities, where demand for purpose-built, pedestrian-to-campus student housing is robust, but high barriers to entry keep availability low. The primary focus should be on acquiring infill properties at schools with limited supply pipelines. Such properties should offer students a walkable commute to campus, a strong amenities package, and close proximity to the area's main corridor of nightlife and retail options. Properties located less than a mile from campus have demonstrated the strongest pre-leasing velocity, most stable rent growth, and highest stabilized occupancy levels.

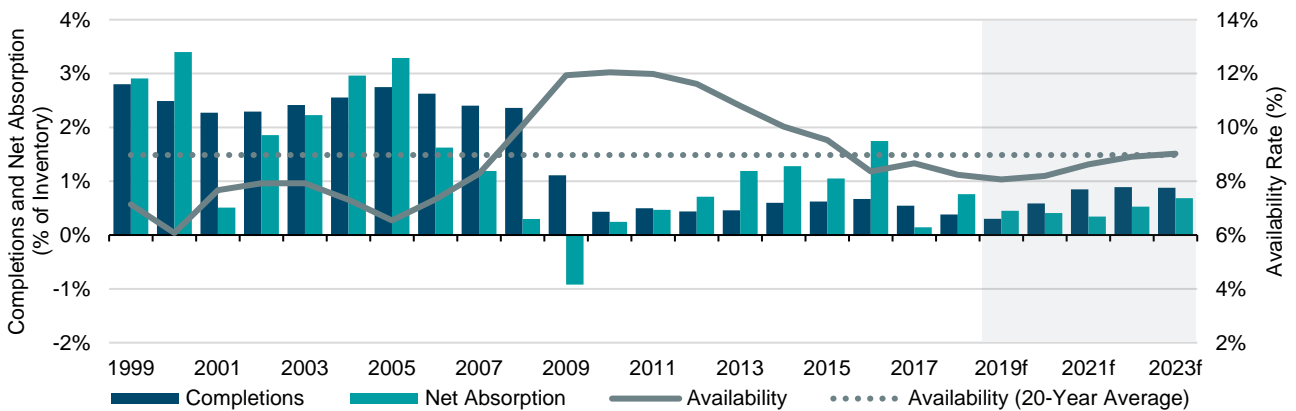
# 7 / Retail Outlook and Strategy

## 7.1 Current Conditions

Fundamentals for the retail property sector continued to exhibit resilience supported by sturdy economic drivers in the first half of 2019. Continued job growth in light of tight labor market conditions, record low unemployment, and elevated consumer confidence continued to support 3.2% year-over-year total retail and food services growth as of May 2019.<sup>45</sup> Even as consumer-led conditions remain supportive of spending, headwinds for the retail sector persist. During the first six months of 2019 several retailers announced store closures, bankruptcies, and liquidations. Year-to-date U.S. retailers have announced 6,986 store closures and 2,985 store openings. This compares to 5,864 closures and 3,251 openings for the full year 2018.<sup>46</sup> It is important to note that almost 65% of store closures announced in 2019 stem from systematic store closures due to bankruptcy proceedings and liquidations. Year-to-date bankruptcy filings have totaled 11 retailers, which is on an even pace when compared to the first half of 2018.<sup>47</sup>

The availability rate for grocery-anchored centers amongst DWS’s Investable Markets (“Investable Markets”)<sup>48</sup> ended the first quarter of 2019 at 8.2%, marking a measured decline of 30 bps year-over-year, according to data from CBRE-EA (see Exhibit 13). At its current level, the availability rate stands 80 bps below its 20-year average of 9.0%, and 390 bps below its post-recession peak of 12.1%. The dearth of new shopping center construction has been a positive and is helping to sustain the availability rate below its long-term average in the face of store closure activity. Deliveries in 2019 are forecast to fall to a historic low of 5.8 million square feet (MSF), 77% below its 20-year historical average.<sup>49</sup>

**EXHIBIT 13: RETAIL (NEIGHBORHOOD & COMMUNITY CENTERS) NET ABSORPTION AND COMPLETIONS AS % OF INVENTORY AND AVAILABILITY RATE (1999 – 2023)\***

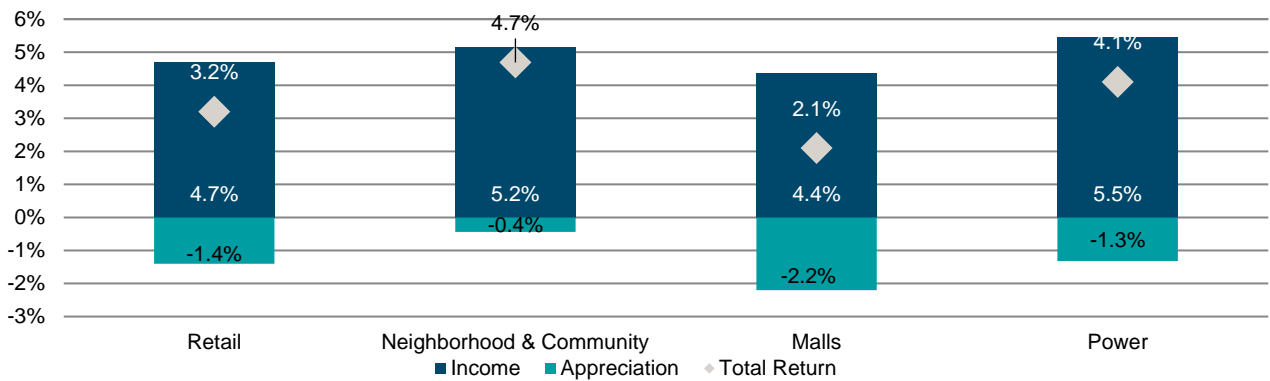


\*DWS’s 28 Retail Investable Markets  
 Source: CBRE-EA (History) and DWS (Forecast). Data as of June 2019.  
 Note: f = forecast. Past performance is not indicative of future results. No assurance can be given that any forecast or target will be achieved.

<sup>45</sup> United States Census Bureau. As of May 2019.  
<sup>46</sup> Coresight Research. As of June 21, 2019.  
<sup>47</sup> DWS, Company Filings, and Coresight Research. As of June 21, 2019.  
<sup>48</sup> DWS Retail Investable Markets include 28 major metros in the U.S.  
<sup>49</sup> CBRE-EA. As of March 2019.

Neighborhood and community centers continue to benefit from growing retail concepts such as dining, discount, health/wellness, fitness, and services. Demand continues to outpace a suppressed supply pipeline, and as a result net absorption totaled 12.6 MSF during the trailing twelve-month period ending March 2019. Year-over-year weighted average rent growth across the Investible Markets averaged 3.0% as of the first quarter of 2019, with all but two (Raleigh and Minneapolis) recording rent growth. Orlando, Oakland, Philadelphia, and San Jose recorded the largest increases of over 5% over the same period.<sup>50</sup>

**EXHIBIT 14: NCREIF TOTAL RETURNS FOR RETAIL SUB-PROPERTY TYPES / INCOME AND APPRECIATION**



Source: NCREIF and DWS. Data as of March 2019. Past performance is not indicative of future results.

The restructuring of retail properties continues to weigh on sector returns, as the encumbrance of capital needed to enhance the customer experience and tenant mix are the preeminent drag on performance. Additionally, negative appreciation eroded returns across all property subtypes. NPI performance for the Retail property type returned 3.2% (trailing four quarters), and underperformed the headline NPI by 360 bps (trailing four quarters) in the first quarter of 2019.<sup>51</sup> Super Regional and Regional Malls, which make up the lion’s share of the index, delivered total returns of just 2.1% (trailing four quarters).<sup>52</sup> With few trades and little price transparency for higher-quality malls, valuation metrics for malls between the public and private markets have diverged by approximately 20%, according to Green Street Advisors, and may be signaling a further pricing correction to come.<sup>53</sup> The mall sector’s exposure to on-the-cusp tenants from the department store, apparel, footwear, and accessories categories and a possible appraisal lag elevate the risk profile for mall assets.

Power centers delivered the highest income returns of the retail subsectors, though capital appreciation remained negative, resulting in a 4.1% total return over the same period. Fundamentals for neighborhood and community centers, whose tenant mix typically features more daily-needs retail and in-demand services, including health care, dining, and fitness, remain healthy and produced returns of 4.7%, the highest risk-adjusted returns compared to the other major retail subtypes.<sup>54</sup>

<sup>50</sup> CBRE-EA. As of March 2019.

<sup>51</sup> NCREIF. As of March 30, 2019.

<sup>52</sup> NCREIF. As of March 30, 2019.

<sup>53</sup> Green Street Advisors. As of April 2019.

<sup>54</sup> NCREIF. As of March 2019.

In terms of performance by geographic region, metros on the West Coast (Orange County, San Diego, and San Jose) continue to outperform. Select Sunbelt markets (e.g., Dallas, Orlando, and Miami) outperformed the benchmark over the last four quarters, but at the same time Houston, Atlanta, Phoenix and Las Vegas underperformed the retail index. In the Midwest and east coast, Boston and Washington D.C. outperformed the index while New York and Chicago imposed the largest drag on sector results. Generally, metros with outsized mall exposure, such as Phoenix, Houston, and Chicago underperformed over the same observation period.<sup>55</sup>

## 7.2 Outlook and Strategy

Going forward, economic fundamentals that underpin consumer spending may prove to be less potent as we advance into the more mature phase of the cycle. Slowing job or income growth, weakening consumer confidence, and price increases on goods, housing or healthcare could pressure discretionary spending. Retail has historically outperformed during downturns, however, this cycle is distinctly different due to the sector's evolution. Operating pressures for retailers still rebalancing real estate portfolios, restructuring debt, and negotiating the potential effects of tariff pressures are expected to persist. Reaching profitability in e-commerce, making significant technology, supply-chain, and inventory-management investments, continues to be the most pressing near-term issues that will further separate the retail winners from the losers.

Our outlook for the retail property sector calls for a gradual increase in the availability rate as the cycle matures and retailers optimize store fleets. New construction is forecast to remain suppressed with deliveries consistently below historical levels through the five-year forecast. Nevertheless, tempering demand could exert upward pressure on the availability rate allowing it to trend above its long-term average of 9.0% by the end of the forecast period.<sup>56</sup> Rent growth across the Investable Markets is expected to average 2.4% annually from 2019 to 2023, a minor upgrade of 30 basis points annually from our year-end 2018 forecast.<sup>57</sup>

We continue to believe in the high-growth regional markets, characterized by diverse economic drivers fueling expansion, population and income growth, and a lower cost of living. Generally, retail in these markets has outperformed compared to the grouping of major gateway markets and smaller tertiary markets over multiple time series over the last 20 years (see Exhibit 15).<sup>58</sup> Regional growth markets have sustained a longer growth cycle, allowing for availability to compress to new lows. Historically low levels of new construction compared to their relative history and that of larger cities, combined with robust population growth has led to stronger growth. In addition, cap rates in these secondary markets may still have additional room to compress on the back of healthy demand and continued income growth.

When regional markets are combined with a bias towards neighborhood and community centers, a performance gap has emerged, which has widened from 125 basis points five years ago to 169 basis points over the last one-year time period. Conversely, smaller markets ("Rest of Country") underperformed on all time periods for retail generally and neighborhood and community centers specifically. This could be due to unbalanced supply/demand fundamentals, such as, fewer supply constraints, a fragmented or competitive grocery landscape, weakening retailer demand, or lower rent growth over the long term. Over the 20-year time horizon, performance of neighborhood and community centers in Gateway, Regional, Rest of Country metros varied by a narrow margin.

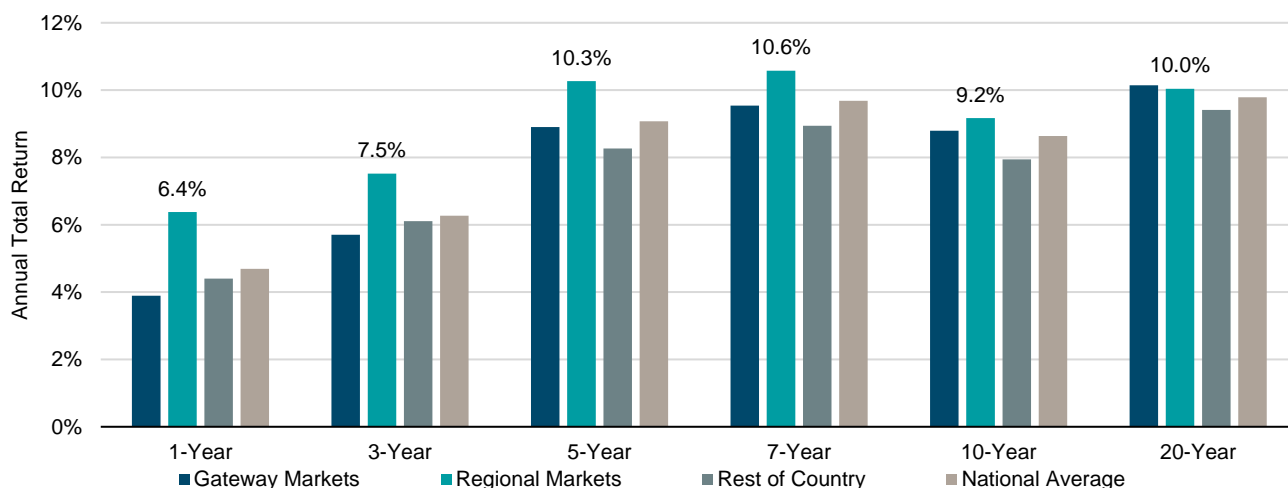
<sup>55</sup> NCREIF. As of March 2019.

<sup>56</sup> DWS (forecast). As of June 2019. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

<sup>57</sup> DWS (forecast). As of June 2019. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

<sup>58</sup> NCREIF. As of March 2019.

**EXHIBIT 15: NCREIF TOTAL RETURNS FOR NEIGHBORHOOD & COMMUNITY RETAIL BY METRO TIER**



Source: NCREIF and DWS. Data as of March 2019. Past performance is not indicative of future results.  
 Gateway Markets: Los Angeles, San Francisco, San Jose, Oakland, Washington D.C., Miami, W. Palm Beach, Fort Lauderdale, Chicago, Boston, New York, Seattle  
 Regional Markets: Phoenix, Orange County, Denver, Orlando, Tampa, Atlanta, Raleigh, Charlotte, Las Vegas, Portland O.R., Nashville, Austin, Dallas, Houston  
 Rest of Country: Includes all NCREIF markets not included in Gateway and Regional categories

**EXHIBIT 16: EXCESS TOTAL RETURNS FOR NEIGHBORHOOD & COMMUNITY RETAIL BY METRO TIER (BPS)**

	GATEWAY MARKETS	REGIONAL MARKETS	REST OF COUNTRY
1-Year	-79.52	168.68	-28.94
3-Year	-56.50	125.08	-16.20
5-Year	-16.70	119.70	-80.39
7-Year	-14.05	89.54	-74.37
10-Year	16.07	53.27	-69.09
20-Year	35.71	24.90	-37.43

Source: NCREIF and DWS. Data as of March 2019. Past performance is not indicative of future results.  
 Notes: If greater than national Neighborhood & Community total return denoted by "Green" text, if less than national average denoted with "Red" text  
 Gateway Markets: Los Angeles, San Francisco, San Jose, Oakland, Washington D.C., Miami, W. Palm Beach, Fort Lauderdale, Chicago, Boston, New York, Seattle  
 Regional Markets: Phoenix, Orange County, Denver, Orlando, Tampa, Atlanta, Raleigh, Charlotte, Las Vegas, Portland O.R., Nashville, Austin, Dallas, Houston  
 Rest of Country: Includes all NCREIF markets not included in Gateway and Regional categories

We continue to expect high-quality real estate to perform, but yields will remain historically low, particularly for high-quality assets. Continue to seek core retail properties anchored by credit, high-volume retailers on long-term leases with contractual rent escalations, in areas with solid demographics, which can provide income and downside protection to a portfolio. The criteria for new acquisitions narrows, where market, asset and physical property characteristics, and tenant selection are critical. While it may appear risks in this sector are skewed to the downside due to structural shifts, physical retail real estate will continue to underpin the success of the omnichannel model.

The strategic themes and implications that reinforce our retail portfolio strategy include:

- **Grocery-Anchored Retail:** Continue to lean into high-volume, Class A neighborhood and community centers anchored by the area’s top traditional or specialty grocer in terms of market share. This segment will likely offer the most attractive risk-adjusted returns in the near term. We believe that well-located neighborhood and community centers with a healthy

tenant mix will continue to fare reasonably well, and should offer stability through cycles. Online grocery in the U.S. is expected to grow at an above average rate over the next five years, but at 3.5% will still remain a relatively low share of total online sales, much lower than that of electronics, books, and apparel. Grocery stores are expanding pick-up options, which should become more prevalent in suburban areas than dense urban cities, as urbanites likely prefer the convenience of last-mile delivery. However, constraints on logistics networks remain significant cost hurdles to service delivery profitably. Several retailers are actively fortifying distribution and logistics networks and leveraging physical footprints to serve more conventional “large-basket” shopping trips online.

- **Power Centers:** We view well-configured power centers that are able to absorb adaptive re-uses and shrinking store prototypes, anchored by best-in-class omnichannel leaders as potential tactical income plays due to higher going-in yields; however, asset, location, and tenant selection are critical. Income returns for this product type are outperforming and may be able to provide durable income due to the structure of flat, long-term leases with fixed-rate options. Over time, we believe these centers can serve as last-mile distribution or showrooms in the right locations.
- **Malls:** Mall performance will likely wane in the near term and informs a suggested underweight to this property type, as the near term outlook and income profile has been downgraded. NPI returns for both Regional and Super Regional malls continue to waver due to rising capital expenditures, releasing, and tenant improvement costs. We believe this investment now is necessary to maintain viable retail assets over the long term. While we expect that dominant, Class A and trophy malls will survive and even thrive as recharged, entertainment-infused shopping destinations, the capital needed to redevelop properties or re-tenant dark department or apparel spaces to create experience rich properties may drag on investment performance in the near term.
- **Urban and High Street Retail:** We continue to believe in the power of high-traffic and urban shopping destinations that offer compelling retail experiences and branding opportunities for retailers. For the most part, this engagement cannot be simulated online. Focus on the collection of top assets in the prime international shopping districts. However, build out high street retail portfolios selectively to fulfill portfolio considerations. Scale in this product type, in our opinion, will help cushion some downside risks of NNN lease investments to diversify income and stagger lease expirations.

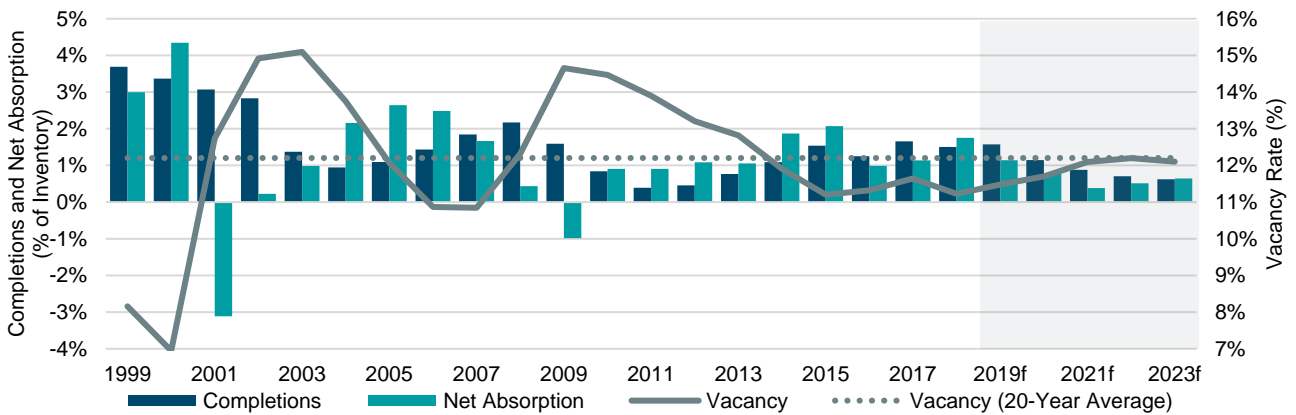


# 8 / Office Outlook and Strategy

## 8.1 Current Conditions

Office fundamentals remained balanced in the first half of 2019 (see Exhibit 17). Vacancy rates across DWS’s Investable Markets (“Investable Markets”)<sup>59</sup> continued to tighten in the first quarter of 2019, averaging more than 100 basis points below their 20-year historical average. Markets with high exposure to tech such as San Francisco, San Jose, Seattle and Austin are posting some of the lowest office vacancy rates across the nation.

**EXHIBIT 17: OFFICE NET ABSORPTION AND COMPLETIONS AS % OF INVENTORY AND VACANCY RATE (1999 – 2023)**



Source: CBRE-EA (history) and DWS (forecast). As of June 2019.  
 Note: f = forecast. Past performance is not indicative of future results. No assurance can be given that any forecast or target will be achieved.

Office demand continued at a steady pace in the first half of 2019 despite a government shutdown, trade war concerns and increased volatility in the financial markets. The U.S. economy continued supporting job creation, adding 617,000 jobs in the first quarter of 2019<sup>60</sup> and keeping the unemployment rate at a low of 3.6% in May 2019.<sup>61</sup> With healthy business confidence, especially in the technology industry, office-using employment gains are expected to continue in the near term. Still, we expect the rate of job growth to moderate compared to recent history. The U.S. economy is operating near full capacity and the search for talent is becoming increasingly difficult given the scarcity of available qualified workers. Metros such as Austin, Charlotte, Dallas, and the San Francisco Bay Area are expected to lead in office-using job growth over the five-year forecast, while growth in the early-recovery markets such as New York, Los Angeles, Washington D.C., and Chicago is expected to moderate and lag the nation.

<sup>59</sup> DWS: Office Investable Markets include 21 major metros in the U.S.  
<sup>60</sup> Bureau of Labor Statistics. As of June 2019.  
<sup>61</sup> Bureau of Labor Statistics. As of June 2019.  
 Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

Despite the increasingly cautious economic sentiment and recession fears, office leasing activity has been robust and a few more years of healthy net absorption are expected. Co-working, technology and finance were the three main sources of office demand across U.S. office markets in 2019, accounting for 47.7% of total leasing activity in the first quarter.<sup>62</sup> Office net absorption is expected to reach 35 million square feet (1.1% of stock) across the DWS's Investable Markets in 2019, representing the sector's 10th consecutive year of positive net absorption. Yet, demand growth relative to job growth has been significantly lower since the 2008 recession compared to other cycles. That is due to the shadow space that was created during the Financial Crisis which took several years to be absorbed as well as the sector's densification trends. Today, tenants require 15% to 20% less space than prior to the past recession as employers are packing more workers into smaller space.<sup>63</sup> By significantly reducing overall net absorption, densification creates a meaningful drag on office fundamentals. Therefore, markets may need more employment growth than in previous cycles to compensate for increased space utilization.

Relatively disciplined construction has supported the office sector during the current economic cycle. Still, spurred by healthy office fundamentals and a flight-to-quality, as firms favor new, high-quality space in well-amenitized office nodes, construction is expected to remain active in the near term. Our forecast calls for more new supply over the next year as big projects in select metros are delivered. Yet, supply is not evenly distributed. Construction is highly concentrated in a few high-demand and tech-oriented markets, notably San Jose, San Francisco, Seattle, Austin and Charlotte, and in large, gateway markets such as Chicago, Washington D.C. and New York. Given increasing construction costs and tightening lending standards, speculative construction is expected to slow by the middle of the forecast, limiting widespread supply concerns and likely keeping vacancy rates in balance by the end of our five year forecast period.

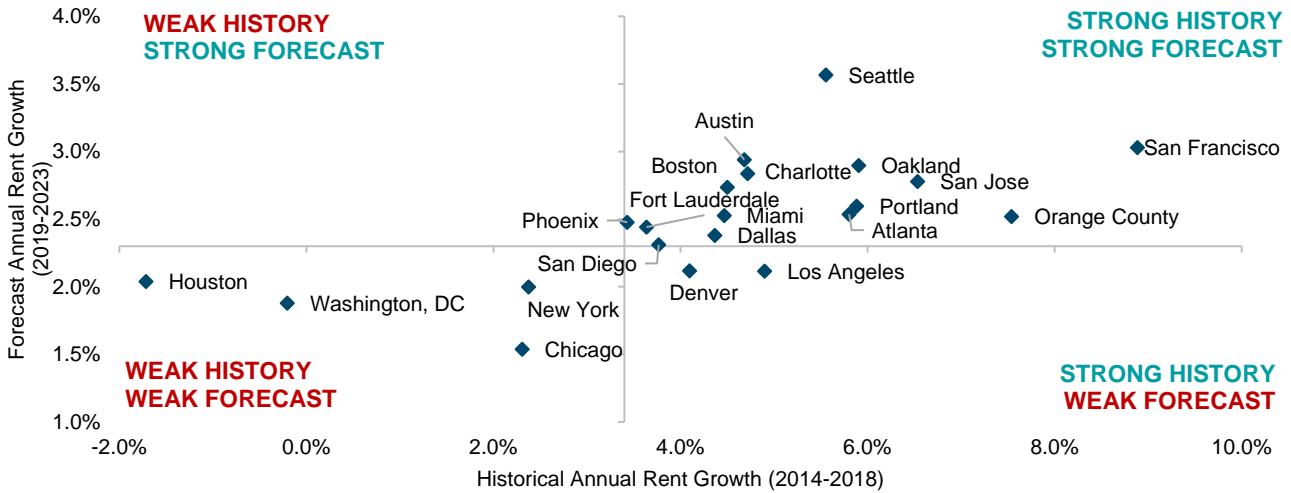
Following a strong performance over past five years, the growth in effective rent levels is expected to continue. However, the pace of growth is forecasted to slow as market conditions become more competitive. While rent growth performance varies widely by market, tech-centric markets in the Bay Area, Austin and Portland have been the best performers over the past year, followed by regional markets like Fort Lauderdale, Charlotte and Atlanta. Seattle has been among the most heavily supplied markets during the current economic cycle, but still has produced strong rent growth rates given Amazon's continued expansion, as well as a booming tech sector.

Office rent growth is expected to moderate from the 3-4% annual average registered over the past five years to a 2-3% annual range over the five year forecast period as the growth in the overall office demand loses steam (see Exhibit 18). Regionally, we expect rent growth in the Bay Area and in other tech driven metros to slow considerably relative to their recent history. Yet, we believe metros with an expanding tech presence and strong population growth will outperform the nation. Those include large tech-centric markets in the West Coast and emerging tech markets such as Austin, Charlotte and Atlanta. The demographically challenged East Coast and Midwest markets such as New York, Washington D.C. and Chicago are likely to remain among the worst rent growth performers due to high new supply and subdued office demand.

<sup>62</sup> JLL. As of March 2019.

<sup>63</sup> Green Street Advisors. As of March 2019.

**EXHIBIT 18: OFFICE RENT GROWTH (ANNUAL, % YEAR-OVER-YEAR)**



Source: CBRE-EA (history) and DWS (forecast). As of June 2019. No assurance can be given that any forecast or target will be achieved.

## 8.2 Outlook and Strategy

After a healthy 2018, office sector performance is expected to continue with modest growth for several more years as it advances through the late-growth phase of the real estate cycle. Office fundamentals will likely remain solid in the near term, though rent growth is expected to moderate by the middle of the forecast. The impact of active development will likely cause vacancies to rise in select markets, yet remain healthy compared to historical levels. Most major gateway metros are reaching their peaks as it relates to labor markets and space demand. The sector’s high capital expenditure burden and persistently low cap rates across U.S. gateway markets and major CBDs create risk and return imbalances. Investors should become increasingly cautious and selective as it relates to new investment opportunities. Our focus is on stable rent rolls and low tenant risk profiles as well as higher-quality assets with low near-term capital requirements. Space preferences are evolving with tenants preferring buildings with a wide range of amenities aimed at supporting employee wellbeing and an activity-based workplace.

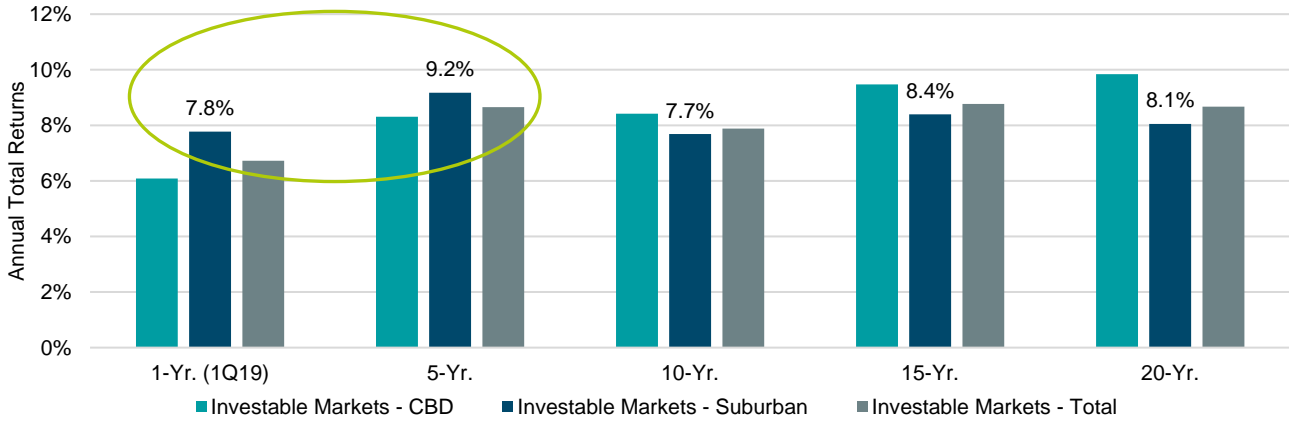
The central themes that are shaping our office strategy include:

- High Density Prime Suburban Office Nodes:** In addition to our urban-core strategy, we believe that there are opportunities to be captured in select suburban nodes with urban-type amenities. These select suburbs include locations with ample transit connections, lively neighborhoods offering a wide range of urban-like amenities, adjacent to major employment centers and proximity to high concentrations of highly skilled workforce. The prime suburban office nodes would have relatively high occupancy rates and rent levels, and tend to outperform, not only the overall metro, but also their corresponding downtown submarkets. With low yields, rising expenses and tepid demand, total return performance in early-recovery gateway markets has been moderating. Going forward, employers may choose to expand into the prime suburban nodes to benefit from the young workforce relocating here in search for housing affordability, better lifestyle choices and access to urban-type amenities. Moreover, recent NPI office returns show that suburban markets have outperformed those in the CBDs, driven by both appreciation and income growth (see Exhibit 19).<sup>64</sup>

<sup>64</sup> NCREIF and DWS. As of June 2019.

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**EXHIBIT 19: SUBURBAN OFFICE RETURNS BEAT CBD RETURNS (% YEAR-OVER-YEAR)**



Source: NCREIF and DWS. As of March 2019. No assurance can be given that any forecast or target will be achieved.

- Supply-Constrained Regional Metros:** High rent growth across tech and early recovery markets is expected to moderate, while regional metros, particularly in the high-growth Sunbelt markets, will likely continue to outperform. These are late-cycle metros with strong demographic and office-using employment prospects, as well as affordable business and housing costs. Oversupply could be a risk in these markets, but given the near-term supply and demand balance, we think that there could be opportunities in markets such as Austin, Atlanta, Charlotte, and Fort Lauderdale where rent growth will likely outperform the Investable Markets average (see Exhibit 18).<sup>65</sup>
- Knowledge-Based and Innovation Metros:** The growth of knowledge economies has been perhaps the most important factor in generating the ongoing search for talent, where competitive advantage is driven by the ability innovate. Companies increasingly make their corporate office location decisions based on the density and availability of a qualified workforce. Innovation metros are often driven by different factors to traditional office sector, particularly in life science and technology. Moreover, the collaboration between private companies and the local universities is fostering innovative ecosystems that will likely further attract talent and generate continuous office tenant demand. Assets in proximity to well-connected cities, growing exposure to the technology industry, and strong population growth will likely outperform. At the top of the rankings are a number of favorites led by Boston, Seattle the San Francisco Bay Area, and Austin.
- Medical Office:** Given their countercyclical attributes, investments in medical office could offer stability and diversification to a traditional office portfolio. The subsector could enhance overall portfolio's performance given its lower return volatility, especially during an economic slowdown<sup>66</sup> as healthcare services are in demand irrespective of the economic cycle. Moreover, the growing need for medical services at all ages, and among aging baby boomers in particular, is expected to continue to generate demand for medical office. Our strategy calls for investments in high-quality facilities proximate to hospitals and in suburban areas or medical corridors where care can be delivered in an outpatient facility close to a large patient population. These are medical office facilities that offer specialized services (e.g. dialysis centers, ambulatory surgery centers, etc.).

<sup>65</sup> DWS. As of June 2019.

<sup>66</sup> DWS, NCREIF and MSCI. As of June 2019.

## 9 / Environmental, Social, and Governance (ESG) Outlook

The importance of ESG within real estate continues to rise driven in part by state and local regulation. We believe that this trend could begin to influence asset selection and may also drive more capital expense in order to protect existing properties from the risks of regulation and obsolescence.

### 9.1 Growth of Green Building Regulation

While the U.S. has withdrawn from the Paris Agreement, the landmark global commitment to emissions reductions, cities and states across the country have picked up the baton in the form of local regulation. Recent legislation and regulation have increasingly focused on real estate, which in larger cities can account for more than half of carbon emissions (in the case of Washington D.C., roughly 74% of emissions).<sup>67</sup> Of the 30 DWS Investable Markets, 19 already require energy disclosure or benchmarking. Additionally, some cities are taking aim at the topic by strengthening building codes around efficiency standards. Cities including San Francisco, San Jose, and Miami are requiring that all new properties meet Leadership in Energy Efficiency and Design (LEED) standards, while other cities such as Seattle and Chicago are providing incentives for LEED certifications such as density bonuses or expedited permitting.

As building codes strengthen, some cities have begun to enact efficiency requirements for existing buildings. Last year, Washington D.C. passed a law requiring existing buildings that are not at or above the energy performance standard (as defined by the city) by 2021 to undertake measures to improve their energy efficiency. In contrast, New York City's law focuses on carbon and sets emissions limits commencing in 2024. In both cases, there will be fines associated with not meeting those standards. While long-term impacts on pricing of these laws are evolving as owners assess their exposure and the cost of compliance, it is clear that a significant cross-section of New York commercial real estate is at risk of paying fines in the future.

With Washington D.C. and New York the first to enact sweeping standards, there are signs that other cities could take similar action in the future. In June of 2018, seven cities, including Los Angeles, New York, Portland, and Washington D.C., as well as the state of California, committed to net zero energy or carbon emissions. As part of that announcement, the cities have pledged to bring all new buildings to net zero standards by 2030 and, in some cases, all existing buildings by 2050. And while the 2050 deadline seems far in the future, we believe that the stricter standards for new buildings will lead to a widening gap in efficiency and performance between new and existing buildings, requiring increased investments to bridge that gap.

### 9.2 The Path to Net Zero

In order to meet these evolving requirements, we believe an enhanced set of solutions addressing energy efficiency are required. First, relatively low-cost smart building technology, which uses building data to identify and correct operational issues, can drive efficiency and financial savings and complement traditional retrofit activities. Second, renewable energy (either via on-site systems or through the purchase of renewable energy contracts) can protect against regulatory costs as cities and states increasingly focus on net zero objectives. Lastly, tenant engagement can mitigate exposure to penalties and fines, such as those contemplated in New York's recent law. One measure that has become increasingly common is the use of green lease clauses, which are terms in the lease agreement that define both the data landlords can collect around energy as well as the ways in which a landlord can be reimbursed for efficiency-related improvements. These initiatives, while not exhaustive, are among the ways in which real estate can prepare for the regulations to come.

<sup>67</sup>The 2011 District of Columbia Greenhouse Gas Emissions Inventory" District Department of the Environment  
Forecasts are based on assumptions, estimates, views or analyses, which might prove inaccurate or incorrect.

## Appendix 1: U.S. House Portfolio

The DWS House Portfolio represents our opinion of the allocation by property sector for core portfolios in the United States which we believe would outperform the NFI-ODCE. We develop the House Portfolio as an unlevered portfolio of properties without regard to tax consequences. The House Portfolio is formulated using both quantitative and qualitative modeling, integrated with our House View. The resulting weights, we believe, aid in providing long-term risk-adjusted outperformance to our portfolios versus the market as a whole and against relevant benchmarks and indices. The analysis focuses on the four major property sectors and excludes hotels. The following table summarizes our conclusions on weightings in comparison with the NFI-ODCE. The analysis results in an active overweight to the industrial sector, a market weight to the apartment and retail sectors, and an underweight to the office sector.

Sector	NPI Weights	ODCE Weights	Research Perspective	House Portfolio	Active Bet (vs ODCE)	Range
<b>Apartment</b>	26%	26%	<ul style="list-style-type: none"> <li>- Tax reform, high home prices sustaining demand.</li> <li>- Multifamily construction appears to be peaking. Single-family homebuilding historically low.</li> <li>- Moderately defensive through market cycles.</li> </ul>	25%	-1%	20% - 30%
<b>Industrial</b>	17%	17%	<ul style="list-style-type: none"> <li>- Benefits from expanding U.S. population and job gains as well as e-commerce, housing production, and trade.</li> <li>- Speculative construction is rising but with low vacancies, solid rent and NOI growth expected in near term</li> <li>- Smaller &amp; mid-sized warehouses poised to outperform.</li> <li>- Flex/R&amp;D is recovering, but limited to the west region.</li> </ul>	27%	+10%	22% - 32%
<b>Office</b>	35%	35%	<ul style="list-style-type: none"> <li>- ODCE in-place rents approximately 10% below market, supporting healthy NOI growth.</li> <li>- Office-employment strong, but limits to further growth amid low unemployment.</li> <li>- Densification a structural headwind to absorption.</li> <li>- Cyclically volatile sector.</li> </ul>	30%	-5%	25% - 35%
<b>Retail</b>	22%	17%	<ul style="list-style-type: none"> <li>- Returns losing momentum, led by Malls. Neighborhood &amp; Community holding up better.</li> <li>- E-commerce restraining store openings, but convenience and service (health, fitness, dining) retail expanding.</li> <li>- Lack of new supply contributing to improving fundamentals.</li> <li>- Long duration leases provide stable income.</li> </ul>	18%	+1%	13% - 23%
<b>Other</b>	1%	4%	N/A	0%	-4%	0%

(1) NPI weights calculated as gross real estate value excluding ownership share. ODCE weights calculated as gross real estate value at ownership share. Sources: NCREIF and DWS. As of June 2019.

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## Appendix 2: Real Estate Target Markets

**Investible Metros:** We screened top U.S. metros, which represent 86% of the NCREIF Property Index, and identified the investment markets for each property sector that we believe have the best prospects during the market cycle or a portion of it. This metro selection is based on property market size, liquidity, growth characteristics, income, historical returns and other factors indicative of future performance. The list of these metros remains generally static, although some metros may be added or subtracted over time due to structural market changes.

**Target Investible Metros:** These are a subset of the universe of investible metros and include markets that we expect to outperform or market perform during the next three to five years.

### INVESTIBLE AND TARGET MARKETS

Market	↑ Overweight	↓ Underweight	↔ Market Weight	
	Apartments	Industrial	Office	Retail
Atlanta	↔	↔	↑	↑
Austin	↑	↔	↑	↑
Baltimore		↓		
Boston	↔		↔	↔
Charlotte	↔	↔	↑	↑
Chicago	↓	↓	↓	↓
Dallas	↔	↓	↔	↑
Denver	↔	↑	↓	↔
Fort Lauderdale	↔	↔	↑	↑
Houston	↑	↔	↔	↔
Los Angeles	↔	↔	↔	↔
Miami	↓	↑	↑	↔
Minneapolis	↔			↓
Nashville	↑			↑
New York	↓	↑	↓	↓
Oakland / East Bay	↔	↑	↔	↑
Orange County	↔	↑	↔	↔
Orlando	↑	↑		↑
Philadelphia / Central PA	↓	↔		↓
Phoenix	↑	↔	↔	↓
Portland	↓	↑	↑	↑
Raleigh	↔			↑
Riverside	↑	↔		↔
San Diego	↑	↔	↓	↔
San Francisco	↓	↔	↔	↔
San Jose	↔	↔	↔	↔
Seattle	↔	↑	↑	↔
Tampa	↑			↑
Washington DC	↔	↔	↓	↔
West Palm Beach	↑			↑

Source: DWS. As of June 2019.

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## Appendix 3: Performance over the past 5 years (12-month periods)

	<b>3/18-3/19</b>	<b>3/17-3/18</b>	<b>3/16-3/17</b>	<b>3/15-3/16</b>	<b>3/14-3/15</b>
NCREIF Property Index (NPI)	6.8%	7.1%	7.3%	11.8%	12.7%
NPI-Apartment	5.9%	6.4%	6.7%	10.9%	11.0%
NPI-Industrial	14.0%	13.5%	12.2%	14.3%	14.2%
NPI-Office	6.7%	6.6%	5.7%	10.8%	12.7%
NPI-Retail	3.2%	4.8%	7.6%	13.1%	13.8%
NPI-Apartment: High-Rise	4.6%	4.8%	5.6%	9.3%	10.3%
NPI-Apartment: Low-Rise	6.0%	7.0%	7.2%	11.6%	10.7%
NPI-Apartment: Garden	8.6%	9.3%	8.8%	13.9%	12.2%
NPI-Office: Investable Market	6.7%	6.6%	5.9%	11.1%	13.1%
NPI-Office: Investable Market CBD	6.1%	6.2%	5.8%	11.0%	12.7%
NPI-Office: Investable Market Suburban	7.8%	7.3%	6.2%	11.3%	13.4%
NPI-Retail: Malls	2.1%	4.1%	7.8%	13.3%	15.0%
NPI-Retail: Power	4.1%	4.5%	6.8%	11.1%	10.6%
NPI-Retail: Neighborhood & Community (N&C)	4.7%	6.1%	8.1%	13.6%	13.2%
NPI-Retail: N&C Gateway Markets	3.9%	5.6%	7.6%	14.2%	13.6%
NPI-Retail: N&C Regional Markets	6.4%	7.0%	9.2%	14.5%	14.5%
NPI-Retail: N&C Rest of Country	4.4%	6.0%	7.9%	11.8%	11.4%
Giliberto-Levy Senior Mortgage Debt	5.9%	3.2%	1.7%	4.6%	6.5%
	<b>12/17-12/18</b>	<b>12/16-12/17</b>	<b>12/15-12/16</b>	<b>12/14-12/15</b>	<b>12/13-12/14</b>
Giliberto-Levy High Yield Mortgage Debt	11.2%	10.6%	10.8%	5.8%	11.5%

Sources: NCREIF, Giliberto-Levy and DWS. As of March 2019.

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- Adverse changes in economic conditions including changes in the financial conditions of tenants, buyer and sellers, changes in the availability of debt financing, changes in interest rates, real estate tax rates and other operating expenses;
- Adverse changes in law and regulation including environmental laws and regulations, zoning laws and other governmental rules and fiscal policies;
- Environmental claims arising in respect of real estate acquired with undisclosed or unknown environmental problems or as to which inadequate reserves have been established;
- Changes in the relative popularity of property types and locations;
- Risks and operating problems arising out of the presence of certain construction materials; and
- Currency / exchange rate risks where the investments are denominated in a currency other than the investor's home currency.

An investment in real estate involves a high degree of risk, including possible loss of principal amount invested, and is suitable only for sophisticated investors who can bear such losses. The value of shares/ units and their derived income may fall or rise.

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