

A photograph of a modern glass skyscraper at night, illuminated from within, with a grid of white lines overlaid on the image. The building is reflected on a dark surface below it.

January 2019 / Research Report

# U.S. REAL ESTATE STRATEGIC OUTLOOK

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# 1 / Overview

2018 was a good year for U.S. real estate. As of the third quarter, vacancy rates were at their lowest level in nearly 18 years and net operating incomes (NOIs) were up 4.2% year-over-year (four-quarter moving average).<sup>1</sup> Despite three Federal Reserve interest-rate hikes (and a fourth in December), cap rates declined slightly.<sup>2</sup> And total returns to unlevered core real estate, measured by the NCREIF Property Index (NPI), inched up to 7.2% (trailing four quarters) from 7% in 2017.<sup>3</sup>

Still, there were areas of weakness, including malls and New York office and apartment buildings. And rising interest rates, together with slowing global growth and trade tensions, roiled financial markets, particularly in the fourth quarter. We were left wondering whether these developments were transitory distractions or more worrisome early warning signals of the end of the real-estate cycle.

In our view, the near-term outlook remains positive, but with certain caveats. The U.S. economy is strong, with unemployment near a 50-year low and more job openings than there are unemployed people to fill them.<sup>4</sup> We expect that positive momentum and fiscal stimulus will sustain a solid pace of growth — and real-estate absorption — through 2019 and likely 2020. Meanwhile, supply should remain manageable, constrained by labor shortages and rising construction costs. With vacancy rates already low, this environment should be conducive to healthy rent growth.

However, we believe that rising short-term interest rates will put a floor under cap rates and temper investment returns. Moreover, cyclical risks appear to be increasing. The yield curve has flattened, raising the specter of an inversion (long-term interest rates falling below short-term rates), a historically reliable harbinger of recession. This does not mean that a downturn is imminent: recessions typically follow 18-24 months after a yield-curve inversion, and the curve remains positively sloped, albeit mildly. However, it does imply that the cycle is in its later stages.

What are the implications for investment strategy? In our view it is too early to batten down the hatches, shunning growth-oriented sectors, markets, and assets that can thrive amid strong fundamentals. But it is not too soon to begin trimming risk in anticipation of future correction. Meanwhile, powerful structural forces, from demographics to e-commerce, are impacting real estate in ways that transcend the cycle. Our sector and market allocations seek to account for both late-cycle and structural factors.

## 1.1 Sector Allocations

In a mature phase of the cycle it generally makes sense, in our view, to adopt sector allocations with a keener eye toward risk. This would imply tilting away from Office, a pro-cyclical sector, toward Retail, a more defensive one (Apartment and Industrial are historically market-neutral). At the same time, we recognize that corporate densification continues to weigh on the office sector while e-commerce is a boon and a bane for Industrial and Retail, respectively. Weighing these and other

<sup>1</sup> NCREIF. As of September 2018.

<sup>2</sup> Federal Reserve (interest rates); NCREIF (cap rates). As of December 2018.

<sup>3</sup> NCREIF. As of September 2018.

<sup>4</sup> Bureau of Labor Statistics. As of December 2018.

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considerations, our strategy assigns a strong overweight to Industrial, a market weight to Apartment, and underweights to Office and Retail.

- **Industrial (Overweight):** Posting total returns of 14.2% (trailing four quarters) in the third quarter of 2018, the highest level since early 2016, Industrial has established a commanding lead over other sectors.<sup>5</sup> The strength of the fundamentals is difficult to overstate: as of the third quarter, the vacancy rate for core industrial property was 3.4% (four-quarter moving average), its lowest level on record and well below its 30-year average (8.4%), while NOI growth accelerated to 8.5% (year-over-year, four-quarter moving average), also a record.<sup>6</sup> Virtually all cities and product types are profiting from the economic expansion as well as e-commerce, specifically the scramble to assemble the logistical capacity to provide same-day or even two-hour 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.
- **Apartment (Market-weight):** Apartment total returns, measuring 6.4% in the third quarter of 2018, have trailed those of the NPI since 2013 as an influx of new (primarily luxury, urban) supply has pushed vacancies higher and NOI growth lower.<sup>7</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. Given the volume of construction currently underway, we believe that supply will remain elevated through 2019. However, a tentative pullback of new starts points to lower deliveries in 2020. Moreover, we expect that financial imperatives, including rising home prices and mortgage rates and the capping of federal housing tax benefits, will sustain rental demand despite shifting demographics. We expect that segments facing less near-term supply pressure (well-located, garden-style product) and markets with strong population growth (e.g., Phoenix, Atlanta, and Florida) will continue to outperform.
- **Retail (Underweight):** Retail property tumbled from first place among major sectors in 2015 to a distant last place in the third quarter of 2018, recording total returns of just 3.9% (trailing four quarters).<sup>8</sup> The October bankruptcy of Sears underscored the duress many retailers are facing in the e-commerce era, exacerbated by a lack of investment, innovation, unsustainable debts, and poor merchandising. 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 just 2.5% (trailing four quarters). But neighborhood and community centers, whose tenant mix typically features more in-demand services, including health care, dining, and fitness, produced returns of 5.9%. While Retail's travails are not over, we believe that well-located neighborhood and community centers with a healthy tenant mix will continue to fare reasonably well, and can provide income and downside protection to a portfolio.
- **Office (Underweight):** Having lagged behind for most of the past 10 years, the office sector has recently performed relatively well, producing total returns of 6.8% (trailing four quarters) in the third quarter of 2018, second only to Industrial.<sup>9</sup> The office recovery from the financial crisis has generally been modest, but owners are now realizing substantial NOI gains (5.2% in the third 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>10</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 that several dynamic markets, including Los Angeles, Seattle, and Austin, will continue to outperform.

<sup>5</sup> NCREIF. As of September 2018.

<sup>6</sup> NCREIF. As of September 2018.

<sup>7</sup> NCREIF. As of September 2018.

<sup>8</sup> NCREIF. As of September 2018.

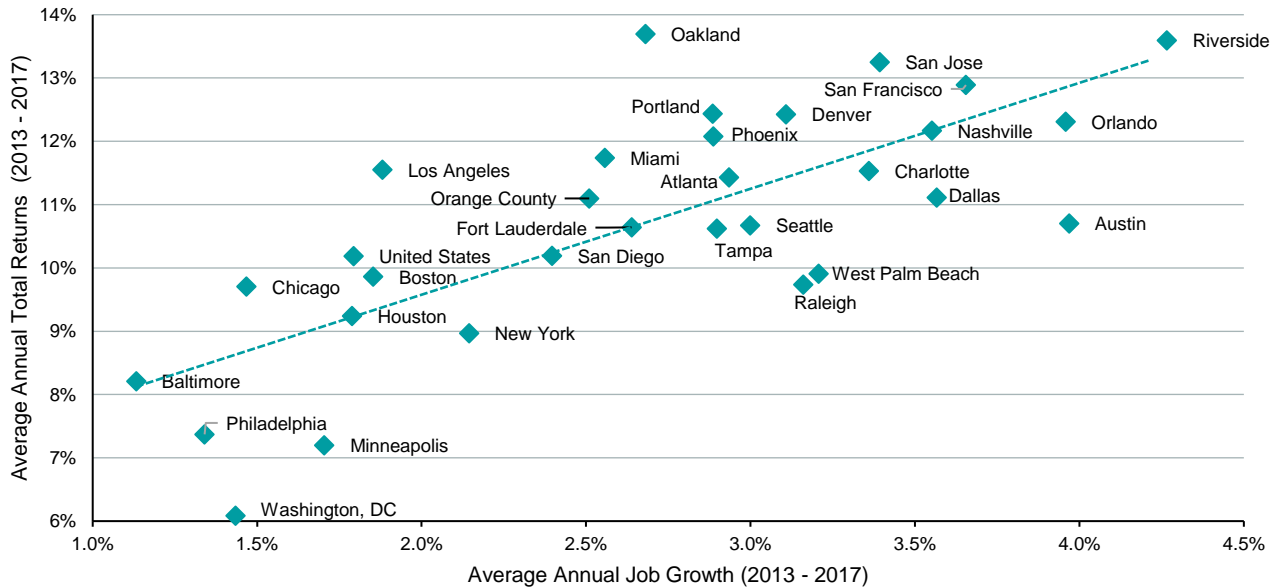
<sup>9</sup> NCREIF. As of September 2018.

<sup>10</sup> NCREIF. As of September 2018.

## 1.2 Market Allocations

Coastal “gateway” markets (e.g., New York) have historically produced attractive rent growth and price appreciation over the long term, courtesy of their density and supply constraints. Conversely, “regional” markets with fewer barriers to supply (e.g., Atlanta) have generally underperformed. Yet this pattern does not always hold in the short term. Over the past five years, job creation has arguably played a greater role in driving relative returns (see Exhibit 1). This has benefitted several regional markets, particularly in the Sunbelt, where lower costs have helped to attract an influx of businesses and people.

**EXHIBIT 1: JOB GROWTH AND NPI TOTAL RETURNS (2013 – 2017)**



Sources: NCREIF (total returns); BLS (job growth); DWS calculations. As of December 2017.

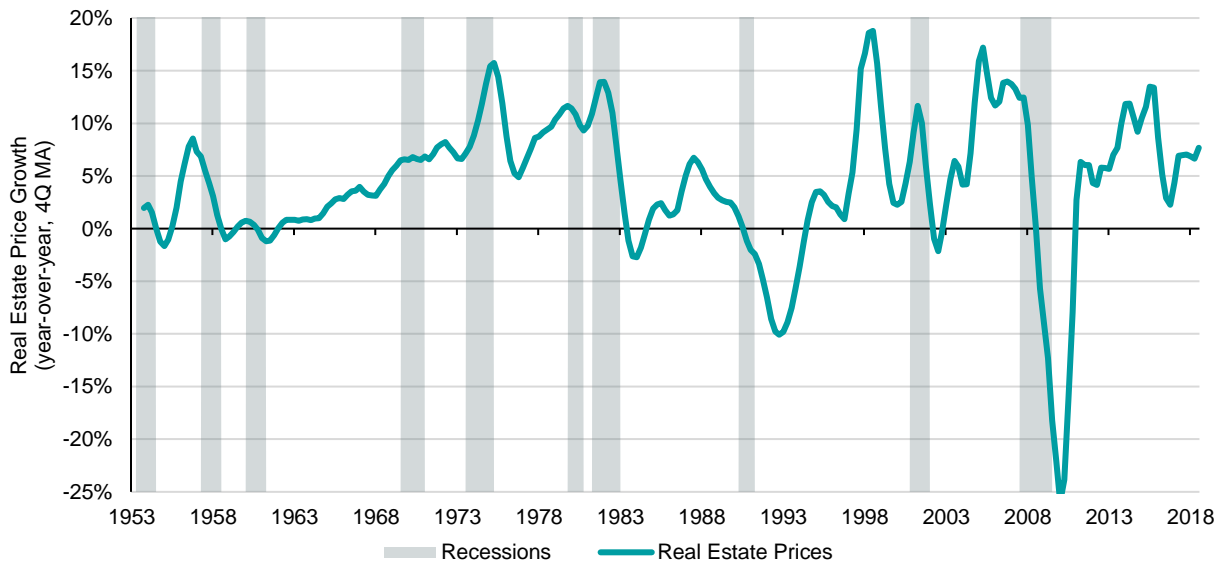
Given the central role that job creation plays in driving medium-term real-estate performance, our market picks are largely geared toward the most dynamic local economies. Among gateway markets we generally favor Los Angeles, San Francisco, and Boston, where tech-driven growth is outpacing new supply; we are also increasingly amenable to Washington D.C., which has historically proved relatively resilient through cycles thanks to its large government presence. Conversely, we are cautious toward New York and Chicago, beset with high costs and fiscal challenges. Meanwhile, federal tax reform, which capped mortgage and state and local tax deductions, should reinforce the demographic advantages of Texas, Florida, and other lower-cost southern locations (e.g., Atlanta and Nashville).

## 2 / Real Estate Fundamentals

U.S. real estate fundamentals are robust. According to NCREIF, the all-property vacancy rate slipped to 5.8% in the third quarter 2018, its lowest level in nearly 18 years.<sup>11</sup> Vacancy rates rested below their 30-year average in every major sector. NOI growth moderated, primarily in the retail sector, but remained healthy overall at 4.2% year-over-year (four-quarter moving average).<sup>12</sup>

In our view, real estate conditions are poised to remain tight for a while yet. Economic growth accelerated to about 3% (annualized) from a post-recession trend of about 2%, while 2.6 million jobs were created, pushing the unemployment rate down to nearly a 50-year low (3.9%).<sup>13</sup> As the effects of deregulation, tax cuts, and increased government spending ripple through the economy, the expansion is expected to continue at least through 2019 and likely 2020. A growing economy is pivotal to the real estate outlook for two reasons: First, it fuels the job creation, household formation, and retail sales that ultimately drive occupational demand (over the past 20 years, real estate absorption has displayed a 0.86 correlation to GDP growth).<sup>14</sup> Second, over the past 65 years, real estate prices have never dropped on a national basis outside of a recession or its immediate aftermath (see Exhibit 2).

**EXHIBIT 2: REAL ESTATE PRICES AND RECESSIONS (1953 – 2018)**



Sources: NBER (recessions); Federal Reserve (real estate prices). As of September 2018. Past performance is not indicative of future returns.

<sup>11</sup> NCREIF. As of September 2018.

<sup>12</sup> NCREIF. As of September 2018.

<sup>13</sup> Bureau of Economic Analysis (GDP growth); Bureau of Labor Statistics (unemployment rate and job growth). As of December 2018.

<sup>14</sup> Bureau of Economic Analysis (GDP); CBRE-EA (absorption); DWS calculations. As of September 2018. Past performance is not a reliable indicator of future returns. 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.

Meanwhile, the pipeline of new supply, which for the most part was already quite disciplined, appears to have moderated. Construction peaked in the spring of 2017 as falling office and multifamily starts more than offset an uptick in the warehouse sector.<sup>15</sup> The slowdown can be attributed to several factors: First, a tightening of bank regulation in January 2015 limited the availability of construction financing. Second, a booming labor market created an acute shortage of skilled workers: construction-industry unemployment fell to a record low, and unfilled job openings rose to a record high.<sup>16</sup> Third, strong demand coupled with import tariffs put upward pressure on materials costs: the price of steel increased 14% in 2018.<sup>17</sup>

The medium-term outlook is more uncertain. The recent flattening of the yield curve testifies to mounting cyclical risks associated with rising short-term interest rates, slowing global growth, trade frictions, and a likely future attenuation of fiscal support. Meanwhile, two policy developments in 2018 introduced supply risks: first, bank-lending rules governing construction financing were loosened; second, tax reform included benefits for development in designated Opportunity Zones.

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%-4% annually. Moreover, with in-place rents approximately 10% below market levels, the rolling of leases to higher market rates should provide additional support to NOIs.<sup>18</sup> However, NOI growth is expected to fade in 2021 as the economy decelerates, particularly if recent policy measures spawn higher levels of new supply.

<sup>15</sup> Bureau of Economic Analysis. As of September 2018.

<sup>16</sup> Bureau of Labor Statistics. As of December 2018.

<sup>17</sup> Bloomberg. As of October 2018.

<sup>18</sup> Altus. As of September 2018.

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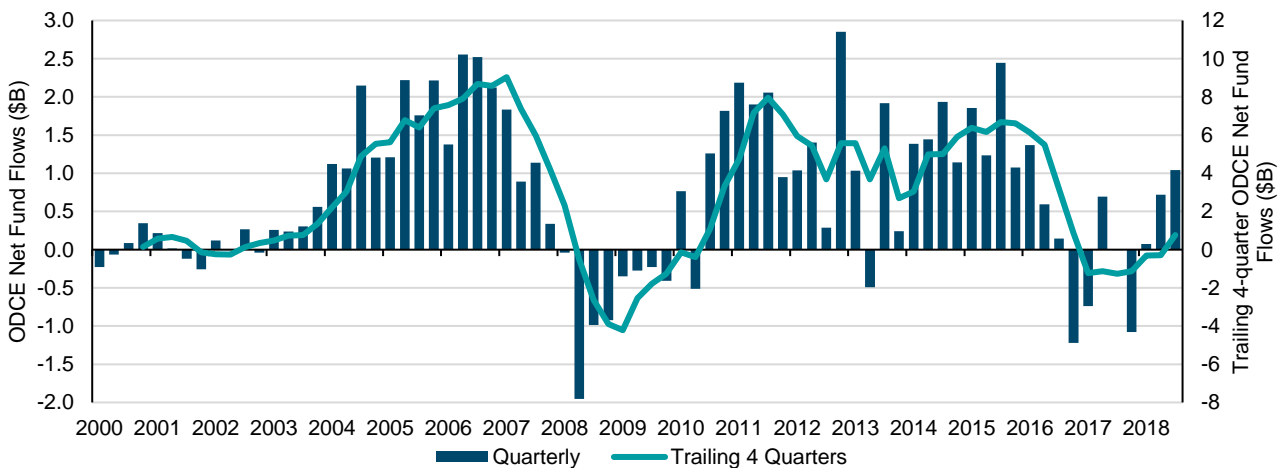
## 3 / Real Estate Capital Markets

Interest rates increased in 2018 against a backdrop of tightening Federal Reserve policy and increased economic uncertainty, with intermediate BBB bond rates rising more than 100 basis points.<sup>19</sup> Despite buoyant corporate profits (supported by economic growth and tax cuts), stock prices swooned in the fourth quarter as investors weighed risks stemming from weaker global growth and looming trade wars. Within real estate, borrowing rates increased while listed REIT prices fluctuated, trading at a 13% discount to net asset value (NAV) at year-end.<sup>20</sup>

In theory, tighter financial conditions can affect real estate transactions markets through several channels: First, higher borrowing costs can reduce prospective returns to levered investors. Second, higher rates can diminish real estate’s yield advantage over other investments. Third, a widening spread to global rates can increase foreigners’ cost of hedging U.S. dollar exposure. Fourth, falling stock prices can push equity allocations below target, causing investors to rebalance portfolios out of real estate. Fifth, lower share prices increase REITs’ cost of capital and the feasibility of purchasing private assets.

In practice, evidence of adverse effects on private real estate transactions markets is mixed. Mortgage debt growth leveled off at about 6% year-over-year in the third quarter of 2018, down only slightly from a cyclical peak of 7% in 2016.<sup>21</sup> Meanwhile, transaction volume was up 11% year-over-year in the first three quarters of 2018.<sup>22</sup> REITs sold a net \$28 billion of real estate as their share prices languished, but foreigners purchased a net \$24 billion, despite a jump in currency hedging costs (Brookfield Property’s \$15 billion privatization of General Growth Properties typified the trend).<sup>23</sup> Meanwhile, inflows into U.S. core funds increased meaningfully in the second and third quarters of 2018, turning positive on a trailing four-quarter basis for the first time since 2016 (see Exhibit 3).<sup>24</sup> Ample capital flows kept cap rates steady in the face of rising interest rates.

**EXHIBIT 3: ODCE NET FLOWS (2000 – 2018)**



Source NCREIF. As of September 2018.

<sup>19</sup> Moody’s Analytics. As of December 2018.

<sup>20</sup> Green Street Advisors. As of December 2018.

<sup>21</sup> Federal Reserve. As of September 2018.

<sup>22</sup> Real Capital Analytics. As of September 2018.

<sup>23</sup> Real Capital Analytics. As of September 2018.

<sup>24</sup> NCREIF. As of September 2018.

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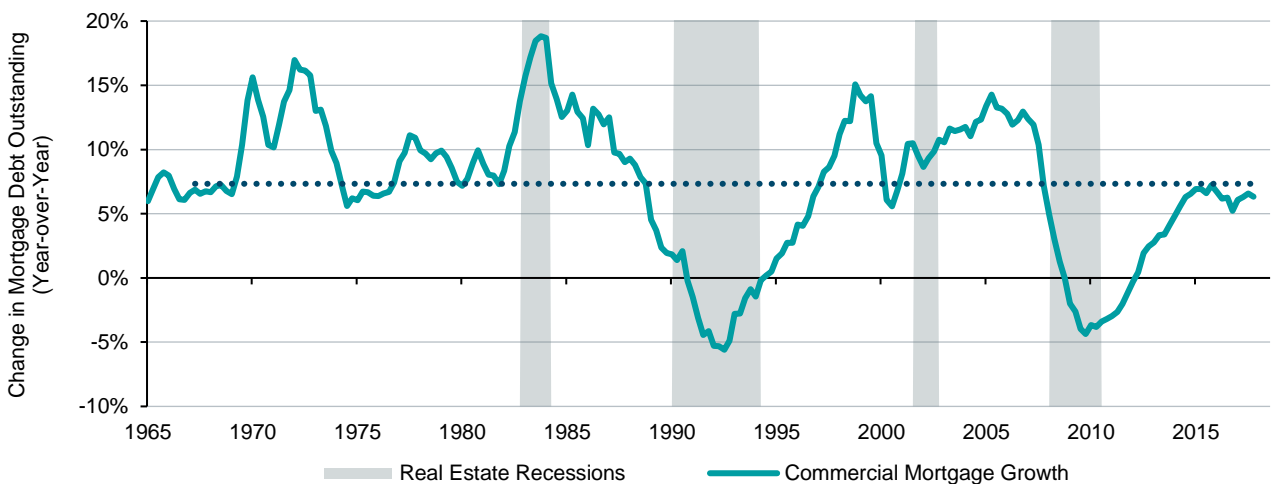
We believe that capital markets will remain choppy. Inflation appears to be well anchored and the bond market is pricing little movement in long-term interest rates. Yet with unemployment below 4%, the Federal Reserve is expected to continue hiking short-term rates and unwinding its balance sheet, and trade and other risks might infuse additional uncertainty. We believe that cap rates will remain stable over the next two years, consistent with recent experience, amid strong NOI growth. However, in our view, cap rates are poised to escalate when fundamentals soften.

### 3.1 Public and Private Debt

Mortgage debt outstanding increased 6.3% in the third quarter of 2018 (see Exhibit 4).<sup>25</sup> Average commercial mortgage rates remained at 4.8% in the third quarter, in line with the previous quarter but up roughly 60 bps over the previous year.<sup>26</sup> Commercial mortgage loan-to-value ratios (LTVs) ticked up 62% but remained below their 10-year average (63.7%). Commercial mortgage returns weakened in 2018 as interest rates ticked higher, ending the third quarter at just 0.8% (trailing four quarters).<sup>27</sup>

CMBS issuance totaled a respectable \$58.2 billion through the first nine months of 2018, down about 5% over the comparable period in 2017.<sup>28</sup> Dodd-Frank risk-retention remains the biggest ticket item on the regulatory watch-list, but overall, the rules have acted more to smooth originations, open up investment to a new base of investors, and stabilize the asset class rather than act as a hurdle or boon for overall volume.

**EXHIBIT 4: GROWTH IN MORTGAGE DEBT OUTSTANDING GROWTH (1965 – 2018)**



Source: Federal Reserve. Data as of September 2018.

<sup>25</sup> Federal Reserve. As of September 2018.

<sup>26</sup> RCA. As of September 2018.

<sup>27</sup> Giliberto-Levy Commercial Mortgage Performance Index. As of September 2018.

<sup>28</sup> Commercial Mortgage Alert. As of September 2018

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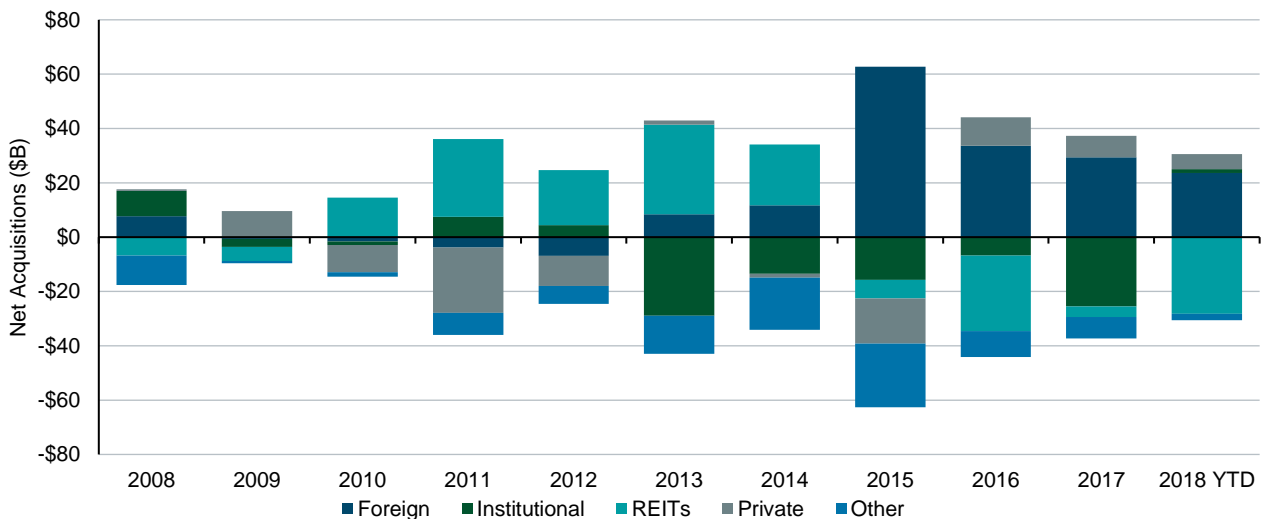
Interest rates will likely move upward as the Federal Reserve tightens, but increases are expected to be gradual, anchored by low interest rates abroad. Meanwhile, there is potential for a modest expansion of lending from traditional sources, particularly if regulatory enforcement eases. Accordingly, we believe that healthy underlying real estate fundamentals and attractive lending spreads to risk-free rates continue to create attractive pockets of opportunities for mezzanine lenders.

### 3.2 Public and Private Equity

From a fundamentals perspective, REITs are exhibiting healthy baseline statistics. As of the third quarter of 2018, Office reached a post-recession occupancy high, while Apartment and Industrial were just four and 10 bps off their post-recession high-watermarks set in the second quarter.<sup>29</sup> Cash flows were also healthy. NOI growth spanning equity REITs has been consistent and stable, and consensus estimates are calling for 6.2% same-store FFO growth in 2019, only a slight deceleration from 2018 same-store FFO growth of 6.9%.<sup>30</sup>

Trailing twelve month transaction volume jumped 4.5% in the third quarter of 2018 in spite of continued interest-rate volatility, as capital inflows from cross-border investors picked back up (+23% on a trailing twelve month basis as of the third quarter).<sup>31</sup> REITs were heavy net-sellers through the first three quarters of 2018 as their share prices traded at significant discounts to net asset values (NAVs).<sup>32</sup> REITs have increasingly opted to use disposition proceeds to buy back stock in lieu of redeploying into new assets (see Exhibit 5).<sup>33</sup>

**EXHIBIT 5: NET COMMERCIAL PROPERTY ACQUISITIONS BY BUYER TYPE (2008 – 2018)**



Source: Real Capital Analytics. Data as of September 2018.

<sup>29</sup> NAREIT. As of September 2018.

<sup>30</sup> Same-store companies include all REIT companies in existence as of 1/1/17 through 12/20/18. Bloomberg. As of December 2018.

<sup>31</sup> RCA. As of September 2018.

<sup>32</sup> SNL. As of December 2018.

<sup>33</sup> RCA. As of September 2018.

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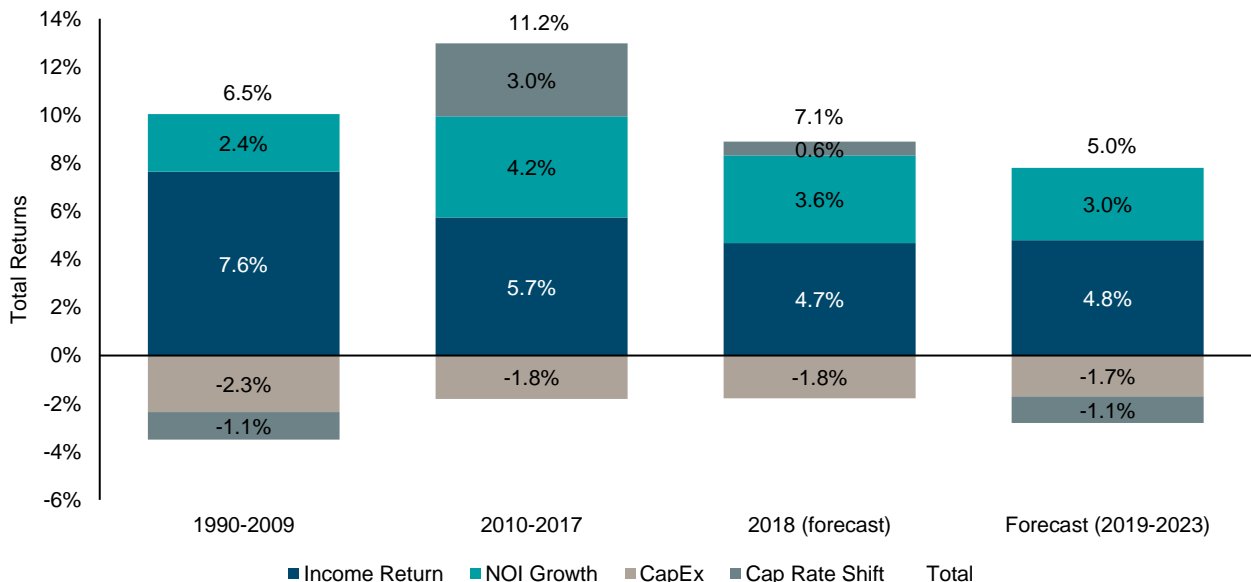
## 4 / Real Estate Total Returns

Unlevered core real estate produced total returns of 7.2% (trailing four quarters) in the third quarter of 2018, in line with 2016 and 2017 levels.<sup>34</sup> Despite four Federal Reserve interest-rate hikes and a more than 100 basis-point increase in intermediate-term BBB bond yields, cap rates have held broadly steady, neither supporting nor inhibiting capital appreciation. Prices have nevertheless increased on the back of vigorous NOI growth.

We believe that these dynamics will remain largely intact in the immediate future. A mix of rising short-term interest rates and favorable growth expectations is expected to keep cap rates relatively stable. However, a healthy balance of demand and supply should continue to drive sturdy NOI growth, pushing real estate values gradually higher. As a result, we expect that real estate returns will hold near 6% through 2020.

The outlook beyond 2020 is more uncertain. A flattening yield curve underscores the medium-term risk of an economic slowdown or even recession. Looser bank lending rules and Opportunity Zone tax incentives could stimulate oversupply. Higher interest rates might push cap rates higher, particularly if fundamentals begin to flag. In our view, these factors point to lower investment returns over a five-year investment horizon (see Exhibit 6). Nevertheless, we believe that returns to real estate will remain attractive relative to those available from other asset classes on a risk-adjusted basis.

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



Sources: NCREIF; DWS (calculations and forecasts). As of September 2018. No assurance can be given that any forecast or target will be achieved.

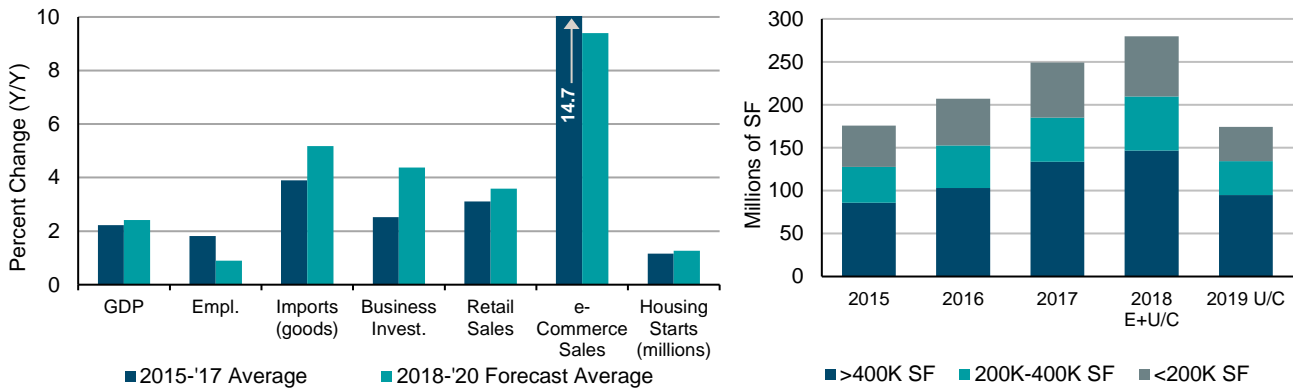
<sup>34</sup> NCREIF. As of September 2018.

# 5 / Industrial Outlook and Strategy

## 5.1 Current Conditions

The drivers that have lifted industrial sector fundamentals and investment performance in this cycle remain strong and appear durable into the foreseeable future. Despite a maturing growth cycle, rising interest rates and threats of a trade war, strengthening GDP growth, persistently strong jobs reports and rising incomes are supportive of industrial real estate.<sup>35</sup> Most drivers are forecast to perform in-line with or better than during the past three years (below left). Occupancy levels and rent gains remained healthy over the past year, even as construction deliveries, nationally, rose to an annual pace of about 1.5% of stock.<sup>36</sup> Typically, rising industrial development is a cause for worry, but this cycle has enjoyed a measured pace of expansion, led by rising bulk warehouse deliveries (the pipeline of smaller buildings has been more constrained). The composition of supply has generally met demand well, but shortages of modern warehouses in coastal markets have persisted. Overall, space demand and new development are in balance, allowing the national availability rate to stabilize at a near-record low. Our target markets continue to perform well, enjoying landlord-friendly conditions (high occupancy and rising rents).

**EXHIBIT 7: INDUSTRIAL DEMAND AND SUPPLY COMPOSITION**



Sources: U.S. Census Bureau and DWS. As of November 2018. Past performance is not indicative of future results. No assurance can be given that any forecast or target will be achieved.

Healthy market fundamentals and intense investor demand continued to support very strong investment performance, with one-year total returns in the third quarter of 2018 of 14.2%, a staggering 700 basis points above the NPI average.<sup>37</sup> The industrial property sector has outperformed the NPI average by 392 basis points annually over the past five years, returning 13.5%. Investor demand continued to compress going-in yields, but overall the sector has a favorable outlook due to relatively good NOI growth prospects, fueled by market rent growth of 25% over the past five years.<sup>38</sup>

<sup>35</sup> DWS; Moody's Analytics. As of November 2018.

<sup>36</sup> CBRE-EA. As of September 2018.

<sup>37</sup> NCREIF. As of September 2018.

<sup>38</sup> DWS; CBRE-EA, as of October 2018.

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Demand and supply balance reflects generally healthy market conditions across most markets. In 2017 net absorption totaled 251 million square feet while construction deliveries reached 232 million square feet. In 2018, demand momentum continued to outpace new supply as net absorption through the third quarter totaled about 167 million square feet and construction completions totaled 146 million 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. Lower barrier markets such as Atlanta, Chicago and Dallas have been more fluid on the supply side, comprising about 29% of national supply so far in 2018.<sup>39</sup>

Persistently tight availability rates spurred market rent growth of about 4.5% nationally in 2017 and is on track for a similar gain in 2018.<sup>40</sup> Fundamentals have been almost uniformly good across markets over the past several years. All 25 metros in our investable universe currently have availability rates well below their long-term averages. Rent growth across these markets has averaged 5.8% annually for the past five years, with only three (Baltimore, Washington and Houston) posting annual growth below 3%.<sup>41</sup> Rent growth prospects continue to be strongest in the primary markets on the West Coast, New York region and in south Florida, although near-term supply in Miami may create less momentum in the next few quarters there.

## 5.2 Outlook and Strategy

We believe that industrial property market fundamentals in the U.S. will remain very good for the next two years (lifted by strong NOI growth prospects), and perhaps longer on a relative basis due several factors: low current vacancy rates, a disciplined construction pipeline, relatively persistent demand drivers (population and consumption growth), constraints close to large population centers, and demand support from e-commerce (rapid fulfillment). That said, we expect the pace of occupancy gains and rent growth to moderate as demand downshifts from its earlier pace and new supply adds competition in some markets. We are beginning to see performance differences between regions, with lower barrier locations in the South and Midwest experiencing less rent growth than higher barrier locations in the West and Northeast. Larger supply-constrained markets have also moderated, as local demand drivers eased with economic conditions. It is also prudent to expect that logistics firms and retailers will continue to become more efficient in the future, better utilizing their warehouse footprints to serve the omni-channel retail world. National demand trends (shown below) are beginning to reflect this trend.

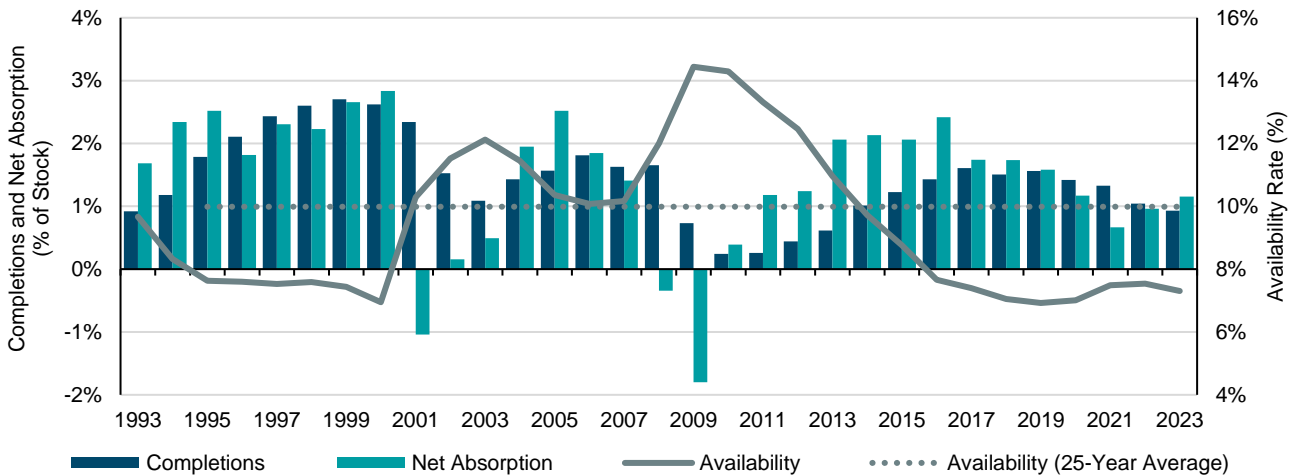
<sup>39</sup> DWS; CBRE-EA. As of September 2018.

<sup>40</sup> DWS; CBRE-EA. As of September 2018.

<sup>41</sup> DWS; CBRE-EA. As of September 2018.

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**EXHIBIT 8: INDUSTRIAL ABSORPTION AND COMPLETIONS % OF INVENTORY AND VACANCY RATE (1993 – 2023)**



\* Total for U.S. Sum of Industrial Markets (CBRE-EA)

Source: CBRE-EA (History) and DWS (Forecast). Data as of December 2018. No assurance can be given that any forecast or target will be achieved.

The U.S. economic outlook, if realized, should support strong industrial space demand although moderating growth later in the forecast period is expected to dampen demand. The e-commerce driven secular shift in retail is expected to put persistent pressure on retailers and logistics providers to accommodate rapid fulfillment in a growing number of U.S. markets and the result should continue to be additive to warehouse space demand, perhaps buffering it somewhat in a full cycle.

In order to accommodate rapidly changing consumer shopping preferences retailers and logistics providers have invested heavily in their logistics infrastructure, evidenced by their expanding footprints and U.S. employment trends in the transportation and warehousing sector, which has added jobs at a 3.3% pace in the last three years. This expansion appears to be broadening across markets as more retailers add to their technology and logistics capabilities. In its second quarter 2018 earnings report Wayfair Inc., attributed part of its 49% year-over-year website sales growth to its in-house logistics and tech infrastructure. Target, Walmart and Amazon, as well as third-party logistics firms continue to grow their logistics capacity. Amazon currently has 127.8 million active square feet and another 41.7 million square feet underway or planned.<sup>42</sup>

We believe that good investment performance is available over the next several years, especially relative to other sectors, but market and asset selection will have greater impact within the sector. This long-cycle view is supported by a favorable outlook for the economy, with broad industry expansion, growing housing production, rising incomes, a stable international trade environment, and the continued rapid expansion of internet retail sales. Import tariffs and the threat of a trade war with China could impair space demand if rising prices dampen consumption, but generally we believe industrial demand drivers will remain intact during this cycle.

Rising development is integral for supply-chain reconfiguration, as it serves to accommodate the double-digit pace of internet retail sales growth, as well as replace obsolete stock for a wide variety of uses. However, there are regional differences. Rising deliveries in the national warehouse hubs of Atlanta, Chicago, Dallas and Riverside, as well as in secondary markets, should serve to dampen rent growth prospects. Although national totals remain within historical norms, the broadening of the supply pipeline represents a potential for more competitive conditions compared to the last few years. The current pace of development (about 1.5%) is sustainable because much of U.S. industrial stock is old (only 32% of

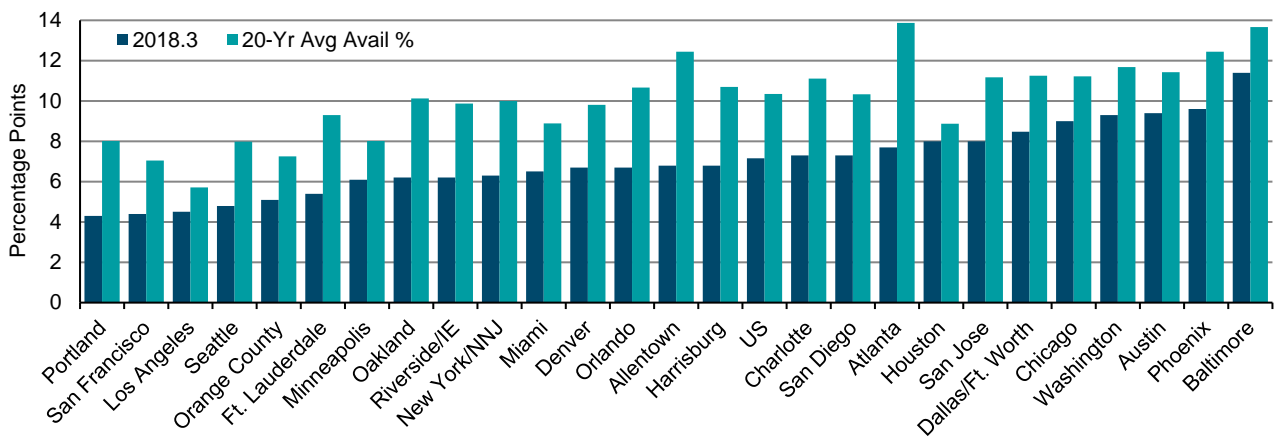
<sup>42</sup> Online Article by, MWPVL Logistics Consultant, November 2018.

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.

existing industrial stock was built since 1990 and only 20% since 2000). The Northeast and West are the most underserved regions in terms of modern stock, so new supply should be well received here.

Functional infill warehouse facilities, particularly in larger, densely populated markets stand to benefit not only from future economic growth but also from supply chain reconfiguration. Revived urban development has given new life to demand for close-in distribution facilities, despite higher occupancy costs. Real estate costs tend to rank low compared to other logistics costs, significantly less than transportation, inventory carry and labor. We expect that markets where demand support has been strongest, those that serve the large east and west coast population centers, will outperform, as low availability rates and greater land supply constraints serve to limit new competition (see Exhibit 9).

**EXHIBIT 9: AVAILABILITY RATES OF MAJOR INDUSTRIAL MARKETS**



Sources: CBRE-EA (History) and DWS. Data as of September 2018. No assurance can be given that any forecast or target will be achieved.

Metro availability rates have been well aligned with past rent growth and total investment returns as reflected in NPI. We believe that the markets occupying the left side of this chart will continue to have better future prospects, while those to the right of the U.S. average, (with the exception of San Diego and San Jose) will be average or below average performers. San Jose’s availability rate is elevated due to a unique dynamic where older obsolete industrial (higher finish) facilities are often held vacant as land banks.

The central themes that are shaping our industrial strategy include:

- **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 and there is still room for robust rental rate roll-up, but new supply will dampen occupancy gains and rent growth. Atlanta is the lone market weight choice in this group as it continues to buck historical trends and demand is still outpacing new supply. We believe it will be important to pursue highly disciplined investing here, limited to new class A assets in top-tier submarkets.

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- **Regional Hubs:** Central Pennsylvania markets of Allentown and Harrisburg are relatively new to our investment universe. These markets performed well early in this cycle and continue to do so, showing fundamentals strength (both with sub-6% vacancy rates). They benefit from high demand and a dearth of modern logistics facilities in the Northeast and mid-Atlantic regions, but their small bases can be volatile. 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, Austin and Miami/Fort Lauderdale. More recently we added Charlotte and Orlando as key southeast locations 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 are generally underwritten to lower total returns. Target Class A assets in core submarkets where in-place rents are below current market levels.
- **Leasing-up / Development:** Given current and expected strong demand trends as well as competitive core investment pricing, a build-to-core strategy should provide solid returns and access scarce modern warehouses for long-term investors. Supply risks have risen in Chicago, Denver, Dallas and Atlanta, but the demand/supply ratios are more favorable in New York/New Jersey, South Florida, Southern California, San Francisco Bay Area, Seattle and Portland. Allentown should also provide for opportunities in the near term.
- **Small-Bay and Non-Warehouse:** 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 perhaps carrying some degree of functional obsolescence, smaller properties (less than 300,000 square feet in size) have outperformed larger ones (500,000+ square feet) in the NPI over the past few years, achieving stronger NOI growth and higher total returns (about 30 basis points since 2013).
- **High-finish Industrial:** We maintain an underweight to high-finish industrial property, including light industrial/flex, office/service and manufacturing as well as small incubator business parks. We are highly selective in targeting research & development (R&D/Office) in only a few high-barrier markets that have good growth dynamics, such as San Jose, San Francisco, Oakland, Seattle, and Orange County.



# 6 / Apartment Outlook and Strategy

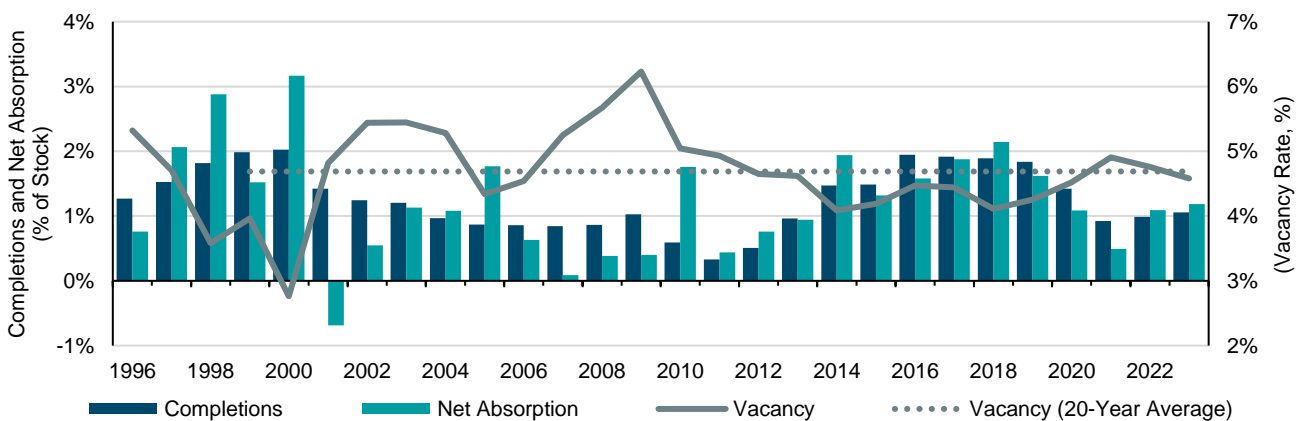
## 6.1 Current Conditions

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). Through the third quarter of 2018, we have seen very strong absorption across DWS’s 29 Investable Markets (“Investable Markets”),<sup>43</sup> totaling over 200,000 units.<sup>44</sup> That figure is already higher than the annual total for 2017, which had been the best year for apartment absorption since 2000. Favorable demographics and rising mortgage rates have continued to support renting over owning. This sustained demand has resulted in a vacancy rate of just 3.9% in the third quarter of 2018, 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. Meanwhile, skilled labor shortages and rising material costs have pushed deliveries into 2019 and 2020. The protracted completion schedule should allow for a gradual rise in vacancy rates. We expect the overall vacancy rate to climb to its long-term average of 4.9% 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, starts and permits have declined from their cyclical peaks (down 21% and 26% respectively),<sup>45</sup> thus bringing needed discipline to the market.

**EXHIBIT 10: APARTMENT NET ABSORPTION AND COMPLETIONS AS % OF INVENTORY AND VACANCY RATE (1996 – 2023)\***



\*DWS’s 29 Apartment Investable Markets  
 Sources: CBRE-EA (history); DWS (forecast). Data as of December 2018.  
 No assurance can be given that any forecast or target will be achieved.

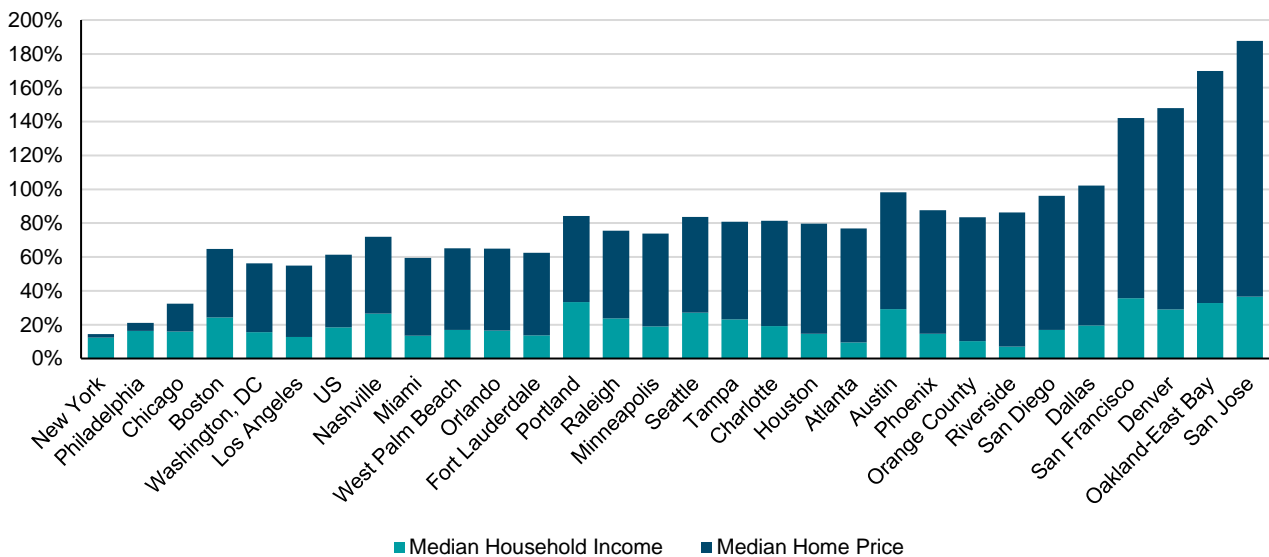
The apartment sector has averaged 4% annual rent growth since 2013, peaking at 6.6% in the third quarter of 2015. While rents have moderated since then, the market showed resilience in the third quarter of 2018, with effective rent growth of 3% year-over-year.<sup>46</sup> Although rent growth has been in line with expectations, the presence of concessions in most markets has

<sup>43</sup> DWS: Apartment Investable Markets include 29 major metros in the U.S.  
<sup>44</sup> CBRE-EA. As of September 2018.  
<sup>45</sup> Moody’s Analytics. As of September 2018.  
<sup>46</sup> Axiometrics. As of September 2018.  
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put a ceiling on that growth. We expect that rent growth will average 2.4% annually through 2023, 40 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 43% cumulatively since 2008, primarily driven by a lack of new housing, especially entry-level homes.<sup>47</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). Rising 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 – 2018)**



Source: Moody’s Analytics and DWS. Data as of September 2018. Past performance is not indicative of future results.

Headwinds facing first time homebuyers as well as demographic trends should especially promote suburban apartment demand in the near term. Conventional wisdom has been that Millennials were not like their parents, choosing to rent smaller units in the urban core surrounded by amenities rather than buy large homes in the suburbs. Recent data, however, shows that over 2.6 million people per year moved from urban areas to top-tier suburbs in 2016 and 2017.<sup>48</sup> This suburban migration has been driven largely by ageing Millennials moving out of cities in search of more space to raise young families, while continuing to pay down student debt and save for down payments on homes. This cohort typically wants high-quality

<sup>47</sup> Moody’s Analytics. As of September 2018.

<sup>48</sup> U.S. Census Bureau. As of September 2018.

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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 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>49</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 is in the low-4% range, with many prime stabilized assets trading in the high-3% range. Bolstered by favorable demographic trends and limited new construction, garden-style product has seen persistent cap rate compression, with its spread over mid/high-rise cap rates narrowing to 60 basis points as of the third quarter 2018, 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 stable at 6.4% (trailing four quarters) in the third quarter of 2018 – an increase of 14 basis points from a year earlier.<sup>50</sup> Western and Southeastern metros have been the primary outperformers: Riverside, Nashville, Orlando, Phoenix, Tampa, Oakland, Charlotte, Denver, Atlanta, and San Diego 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 5%. Among apartment property subtypes, garden apartments were the top performers, returning 9.3% as of the third quarter of 2018. Despite their popularity with investors, high-rise properties lagged behind, returning 4.9% over the same time period, well below the subtype's five-year average annualized return. In our view, high-rise properties will likely underperform again in 2019 as significant supply gets delivered to the urban core.

## 6.2 Outlook and Strategy

While favorable macro trends should sustain healthy renter demand, it is unlikely that absorption can offset the sizeable pipeline of new supply. 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 150,000 units per year in 2019 and 2020, well above their long-term average of 108,000 units per year. Upward pressure on vacancies is expected to cause rent growth to moderate further, though we still project rent growth to average 2.5% 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 4.9% and 2.8%, respectively.

Many of the apartment markets that experienced the strongest rent growth coming out of the Great Recession are currently 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 third quarter of 2018, Chicago, Dallas, Seattle, and New York all trailed the U.S. average. On the other hand, regional markets like Orlando, Riverside, Houston, Phoenix, Tampa, and San Diego all exceeded the U.S. average.

As many large coastal markets are exhibiting decelerating rent growth, the late-recovery Sunbelt and smaller West Coast markets 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

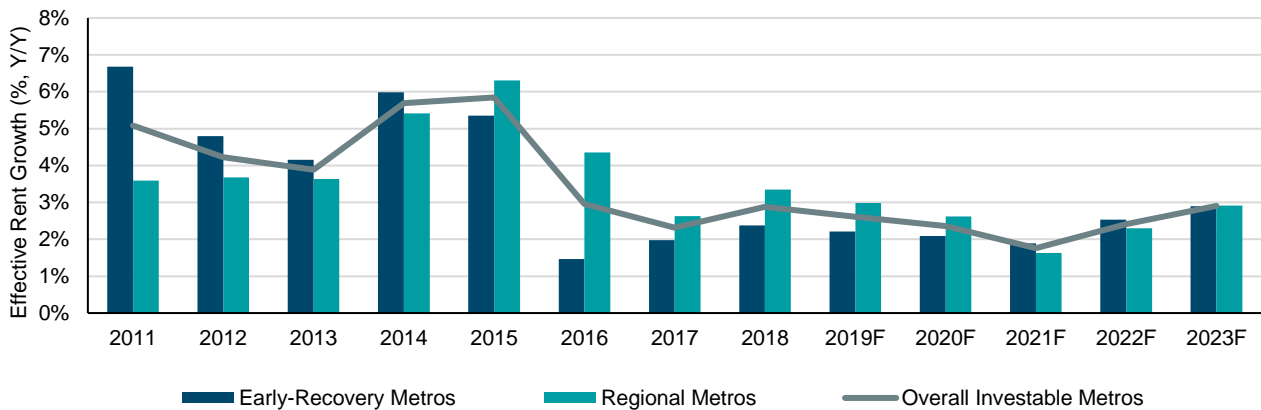
<sup>49</sup> Real Capital Analytics and Altus. As of September 2018.

<sup>50</sup> NCREIF. As of September 2018.

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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 the tech-driven economy in the Bay Area, San Francisco and San Jose should both continue on their upward growth trajectories.

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



Sources: Axiometrics and DWS. Data as of December 2018. 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 strong total returns relative to the other main property types. 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.

The central themes that are shaping our apartment strategy include:

- Urban Core Still in Play, but Be Selective in Late Cycle Environment:** While construction delays are helping many prime urban core markets manage the flow of new luxury product, it will be 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 cap on rent growth. With NOI growth weakening and cap rates low, only the best-located properties with unique amenities should be considered. Properties that offer an urbanized lifestyle with proximity to grocers, parks/trails, and nightlife may 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 closing. Investors spent \$31.9 billion to buy apartment properties in value-add transactions in the 12 months that ended in the third quarter of 2018<sup>51</sup>; these investments have been roughly one-fifth of the multifamily sector’s transaction volume over the past few years. As a result, cap rates have greatly compressed, diminishing the attractive premium over Class A product, while rent growth for Class B and C product has slowed. 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.

<sup>51</sup> Real Capital Analytics. As of September 2018. 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.

- **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, and be located near a highly-amenitized town center.
- **As NOI Growth Slows, Student Housing Becomes Even More Compelling:** Given that we are in the mature phase of the real estate cycle, where rent growth has moderated and supply levels remain elevated, the diversification benefits and steady cash flow profile of student housing have become even more compelling. Core capital continues to flow into the space at record levels. Sustained investor demand for student housing has led to continued cap rate compression, with average yields for core assets at historically low spreads (50-60 basis point premium<sup>52</sup>) to comparable market-rate product. Core, Class A properties at large Tier 1 universities are currently trading at cap rates between 4.0% and 5.0%, in line with Class A market-rate apartments. Nevertheless, pricing could move even higher in anticipation of a future economic slowdown.

<sup>52</sup> Real Capital Analytics. As of September 2018.

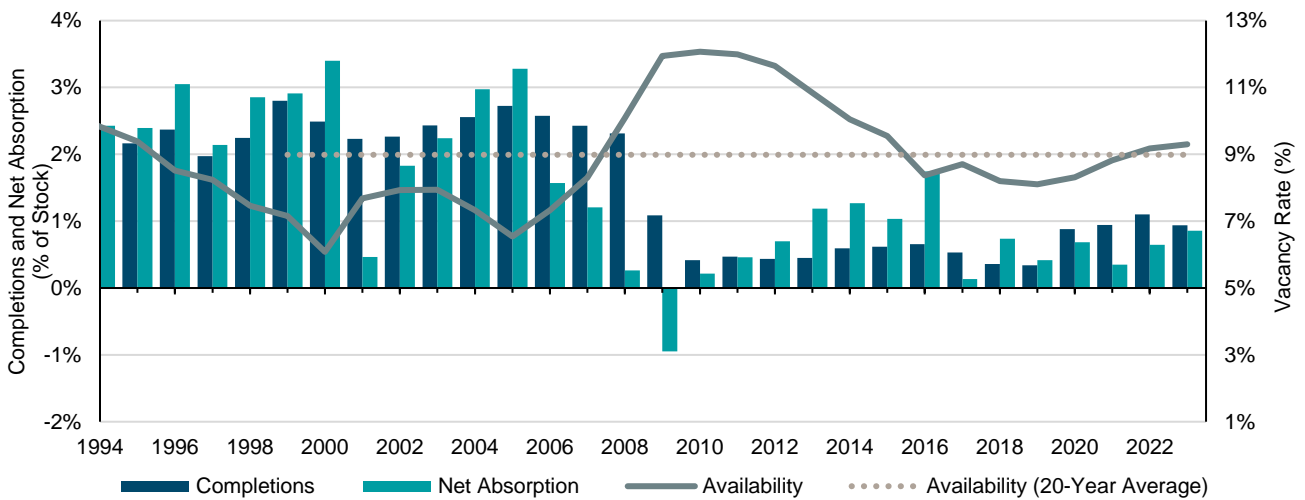
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# 7 / Retail Outlook and Strategy

## 7.1 Current Conditions

The retail sector continues to adjust and find balance in an evolving retail paradigm. Fundamentals for neighborhood and community centers remained resilient with availability continuing a slow but steady decline despite another active year for retailer bankruptcies and store closures. The availability rate for grocery-anchored centers among DWS's 28 Investable Markets ("Investable Markets")<sup>53</sup> ended the third quarter of 2018 at 8.3%, a restrained decline of 40 bps from year-end 2017, according to data from CBRE-EA (see Exhibit 13). At its current level, availability sits 70 bps below its 20-year average and 380 bps below its post-recession peak of 12.1%. New supply remains well below historical levels, and has helped to keep the national availability rate in check. Deliveries in 2018-2019 are forecast to reach approximately 6.8 million square feet (MSF) annually, falling 74% below its 20-year historical average.<sup>54</sup>

**EXHIBIT 13: RETAIL (NEIGHBORHOOD & COMMUNITY CENTERS) NET ABSORPTION AND COMPLETIONS AS % OF INVENTORY AND VACANCY RATE (1994 – 2023)\***



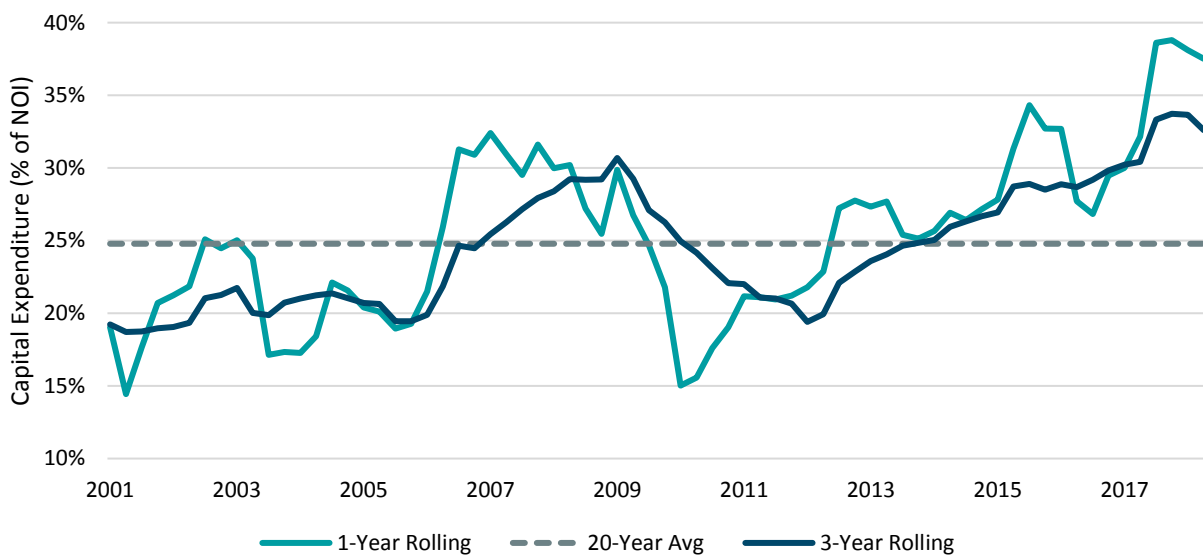
\*DWS's 28 Retail Investable Markets  
 Source: CBRE-EA (History) and DWS (Forecast). Data as of September 2018.  
 No assurance can be given that any forecast or target will be achieved.

Neighborhood and community centers are well positioned to absorb demand from growing retail concepts such as dining, discount, health/wellness, fitness, and services. Demand continues to outpace a modest pipeline, and as a result net absorption totaled 10.6 MSF year-to-date through the third quarter. Year-over-year weighted average rent growth across the Investable Markets averaged 3.1% as of the third quarter of 2018, with all but one of the 28 investable markets (Nashville) recording rent growth. Washington D.C., Dallas, and Oakland recorded the largest increases of over 5% over the same period.<sup>55</sup>

<sup>53</sup> DWS Retail Investable Markets include 28 major metros in the U.S.  
<sup>54</sup> CBRE-EA. Data as of September 2018.  
<sup>55</sup> CBRE-EA. Data as of September 2018.  
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NPI performance for retail assets continued to wane. The Retail Index returned 3.9%, and underperformed the headline NPI by 390 bps. The on-going transformation and repositioning of retail assets are the primary drag challenging NOI growth. Capital expenditures at retail centers has well outpaced historical averages in this cycle (see Exhibit 14). Retail landlords are transitioning and fortifying assets to become retail experience centers to better adapt to changing consumer behaviors and preferences. Elevated construction, build-out, leasing, and tenant improvement costs are eroding positive momentum gained from increasing occupancy and positive re-leasing spreads at super regional and regional malls, which make up the lion's share of the index.<sup>56</sup>

**EXHIBIT 14: CAPITAL EXPENDITURE AS A PERCENT OF NET OPERATING INCOME (ALL RETAIL SEGMENTS)**



Sources: NCREIF and DWS. Data as of September 2018. Past performance is not indicative of future results.

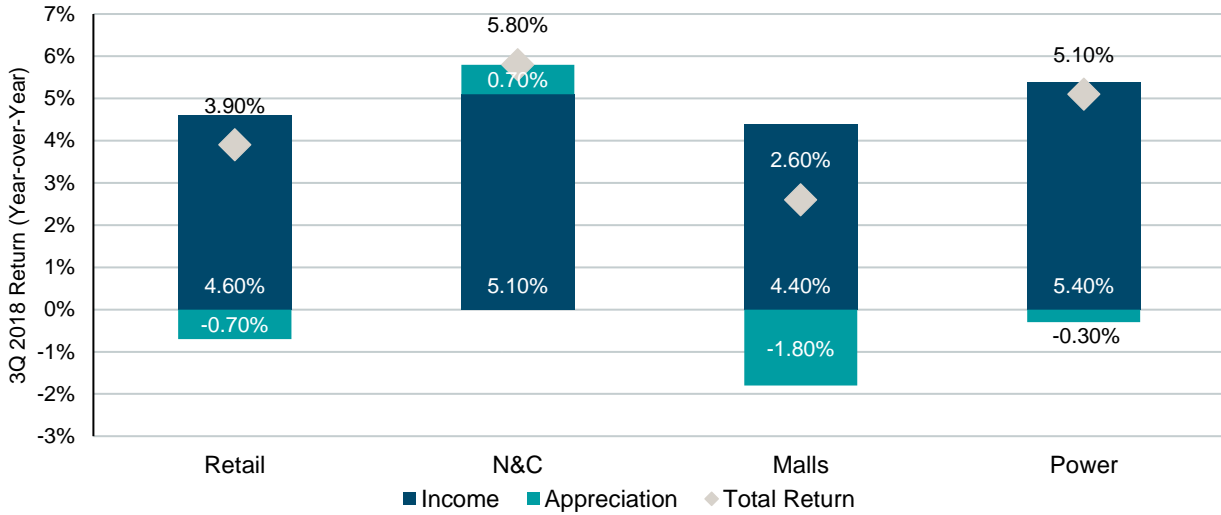
Meanwhile, returns for neighborhood and community centers continued to outperform, returning 5.8% over the last trailing four quarters. Power centers delivered the highest income returns of the retail subsectors, though capital appreciation remained negative, and returned 5.1% over the same period. Performance of Super Regional and Regional malls exhibited the sharpest decline as values dropped 2.6% (trailing four quarters). Metros on the West Coast (Los Angeles, San Diego, San Jose, and Las Vegas) vastly outperformed while Sunbelt markets generally performed in-line with the benchmark over the last twelve months. Meanwhile, the east coast “Acela Corridor” markets (New York, Baltimore, Boston, and Washington D.C.) underperformed the index (see Exhibit 12).<sup>57</sup>

<sup>56</sup> NCREIF. Data as of September 2018.

<sup>57</sup> NCREIF. Data as of September 2018.

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**EXHIBIT 15: NCREIF TOTAL RETURNS FOR RETAIL SUB-PROPERTY TYPES / INCOME AND APPRECIATION**



Source: NCREIF and DWS. Data as of September 2018. Past performance is not indicative of future results.

## 7.2 Outlook and Strategy

Consumer fundamentals remained robust in the second half of 2018, as a strong economy, low unemployment, tax savings, falling gas prices, and income growth boosted consumer spending. Core retail sales continued to gather momentum into the holiday season, and is up 4.0% year-over-year.<sup>58</sup> Going forward, economic fundamentals that underpin consumer spending may not be as favorable. Stock market volatility, slowing housing market, rising interest rates, and escalating costs of housing and healthcare could pressure discretionary spending.

Store closures and bankruptcies remained near peak-levels during 2018 (see Exhibit 16). Over 40% of bankruptcies during the year were in the accessories, apparel, and footwear categories.<sup>59</sup> In total, retailers announced the closure of approximately 145 MSF of retail space across the U.S., which outpaced the 102 MSF of store closures announced in 2017, according to CoStar.<sup>60</sup> The dark spaces left behind from larger users such as Sears/Kmart, Toys “R” Us, and other department stores such as Bon-ton induced this increase. For retailers, restructuring corporate debt, rebalancing real estate portfolios, reaching profitability in e-commerce, slowing global growth, supply chain investment, and inventory management continue to be the most pressing near-term issues. These pressures combined with declining in-store traffic or sales may lead to another active first quarter for retailer bankruptcies in 2019.

<sup>58</sup> United States Census Bureau. As of November 2018.

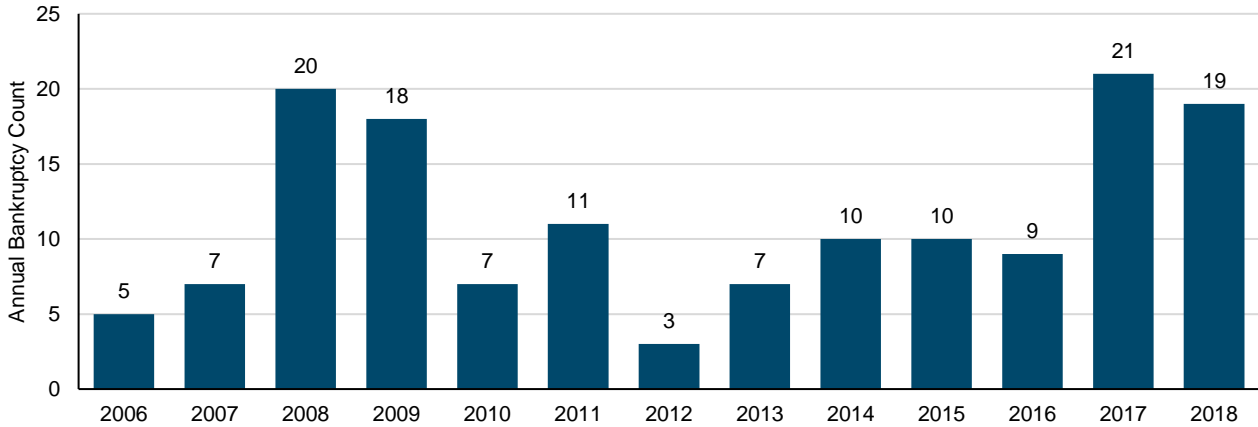
<sup>59</sup> Bloomberg, Coresight Research, Company filings and press releases, and DWS.

<sup>60</sup> CoStar. Data as of December 2018.

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**EXHIBIT 16: 2018 MAJOR RETAIL BANKRUPTCIES**



Source: Bloomberg, CoStar, Coresight Research, Company filings and press releases, Retail Dive and DWS. As of December 2018.

Our outlook for the retail property sector calls for a gradual increase in the availability rate. New supply should remain well below historical levels through the forecast, but tempering demand will support an increasing availability rate to trend above its long-term average of 9.0% over the forecast period.<sup>61</sup> Tenant demand will likely moderate further as the cycle matures and retailers optimize store fleets. We expect conditions for tenants to remain favorable over the forecast period. For landlords increased churn, longer downtime to backfill vacancies, and elevated concessions for desirable tenants are expected to persist. As a result, rent growth across the Investable Markets is expected to moderate from prior forecasts, averaging 2.1% annually from 2019 to 2023.

Core properties occupied by credit, high-volume retailers on long-term leases with contractual rent escalations should remain resilient through cycles. While it may appear risks in this sector are skewed to the downside due to structural e-commerce shifts, physical stores will remain an integral component of the omnichannel model. Focus on properties that can offer a well-rounded retail experience delivering daily needs, entertainment, dining, fitness, and other services in areas with solid demographics.

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

- Grocery-Anchored Retail:** Overweight high-volume Neighborhood and Community centers anchored by the area’s number one grocer in terms of market share. We consider this product type cyclically defensive given its merchandising mix. We expect demand for daily needs, dining, services, healthcare, fitness/wellness, discount, and convenience to provide durable customer traffic in the face of e-commerce. This segment will likely offer the most attractive risk-adjusted returns in the near term. Traditional grocers are in the midst of transition to be able to provide online and home delivery options to compete with Whole Foods (Amazon) and Walmart. Whole Foods recent announcement of store expansions exemplifies the importance of physical real estate and its reach. However, this will push operators to invest in stores and logistics to create better in-store shopping experiences and more efficient distribution points.
- Power Centers:** We view these centers as potential tactical income plays due to higher going-in yields; however, asset, location, and tenant selection are critical. Well-configured power centers that are adaptable to new store prototypes, anchored by best-in-class omnichannel leaders could be attractive. 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.

<sup>61</sup> DWS (forecast). Data of December 2018. 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.

- **Malls:** We continue to suggest an underweight to malls, 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 and releasing costs. We believe this investment now is necessary to maintain trophy, Class A malls, and to upgrade or transform Class B into viable retail assets over the long term. However, in the interim, we expect this level of investment to cause this segment to underperform the index in the near term.
- **Urban and High Street Retail:** Our high street retail portfolio strategy continues to focus on the collection of top assets in the prime international shopping districts. However, build out high street retail portfolios selectively to fulfil 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. We continue to believe high-traffic shopping locations can offer compelling retail experiences that cannot be replicated online and branding opportunities for retailers. Continue to focus on markets where rents and occupancy costs have stabilized, and on strong credit tenants with sales that can support higher occupancy costs compared to traditional shopping centers.

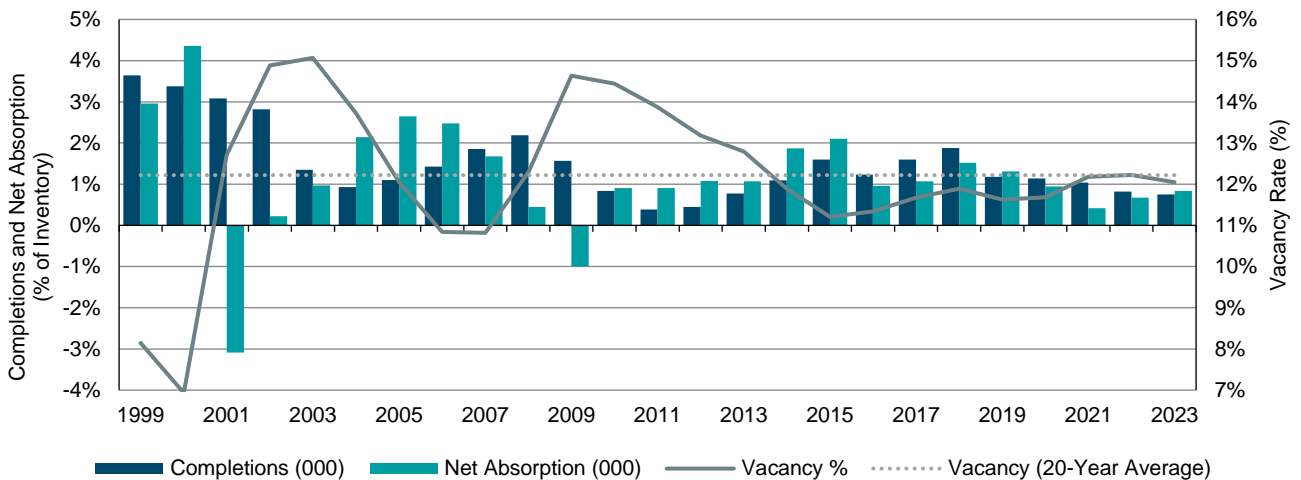
# 8 / Office Outlook and Strategy

## 8.1 Current Conditions

The office sector continued to benefit from sustained U.S. economic growth in the second half of 2018. The job market continued to expand, keeping unemployment rate to a low of 3.9% in December 2018 – near its lowest level since 1969. The labor force participation rate continued to increase and average hourly earnings rose by 3.1% year-over-year.<sup>62</sup> The strength in business confidence and the government stimulus in the form of tax cuts and higher federal spending has been a boon for the office-using employment. Going forward, however, growth is expected to moderate as some of the effect of tax cuts begin to fade and the higher interest rate environment begins to dampen activity in certain markets. Moreover, 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, Dallas, Houston and Portland are expected to lead in office-using job growth over the five year forecast, while growth in the early recovery, gateway markets such as New York, Washington D.C. and Chicago is expected to moderate and lag the nation.

Office fundamentals remained balanced in the second half of 2018 (see Exhibit 17) and are expected to modestly fade thereafter due to still active construction and a tight labor market restricting tenant demand. Vacancy rates across DWS’s 21 Investable Markets (“Investable Markets”)<sup>63</sup> have stayed stable over the past four quarters, reaching below their 20-year historical norms in most markets with San Francisco, Seattle and Austin 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); DWS (forecast). As of December 2018. No assurance can be given that any forecast or target will be achieved. Forecasts are not a reliable indicator of future returns.

<sup>62</sup> Bureau of Labor Statistics, as of December 2018.

<sup>63</sup> DWS: Office Investable Markets include 21 major metros in the U.S.

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.

The technology sector continued to be a key source of demand across the U.S. office markets. Tech dominated leasing activity in the first three quarters of 2018 and accounted for nearly 20% of the top office leases<sup>64</sup>, followed by the financial services sector (18%) and co-working (16%). Yet, demand growth relative to job growth has been significantly lower since the 2008 recession compared to other cycles. That is partly due to the shadow space that was created during the financial crisis which took several years to be absorbed, but also to densification trends, or increased utilization of office space. Nowadays, tenants require 15% to 20% less space than before the last recession as employers pack more workers into smaller space.<sup>65</sup> By significantly reducing overall net absorption, densification has created a meaningful drag on office fundamentals.

Relatively balanced construction activity has been the sector's saving grace during the current cycle with developers building half as much new office product as they did from 2005 to 2007. Still, spurred by healthy office fundamentals and a flight-to-quality, construction gained momentum recently with new supply reaching cyclical peaks in 2018. Our outlook calls for more new supply over the next few quarters as big projects in select metros get delivered. Yet, supply is not evenly distributed. Construction is highly concentrated in a few high-demand tech markets, notably San Jose, San Francisco and Seattle, and in the large, gateway markets such as Washington D.C. and New York. As developers and lenders stay cautious, speculative construction is expected to slow in 2019, limiting supply concerns and keeping vacancy rates in balance by the end of the five year forecast period.

Average asking rents are estimated to have increased 2.5% in 2018, down from 4% to 5% in 2014 and 2015. Tech centric markets like San Francisco and San Jose have been the best performers over the past four quarters, followed by regional markets like Fort Lauderdale, Atlanta and Austin. Seattle has been among the most heavily supplied markets during the current cycle but still has reached top rent growth rates thanks to Amazon's continued growth and a booming tech sector. The demographically challenged East Coast and Mid-West markets such as New York, Washington D.C. and Chicago are likely to remain among the worst performers (see Exhibit 18).

Full employment, low cap rates and elevated amounts of capital expenditures will likely limit future office returns. Even as economic growth and consumer sentiment remain strong, the fight for qualified workforce will likely keep the expansionary activity subdued. The near-term active new supply will also improve tenants' flexibility and leverage, further boosting leasing volumes in the absence of a spike in employment as occupiers take advantage of more generous deal terms spurred by landlords competing for tenancies through larger and more comprehensive incentives packages.<sup>66</sup>

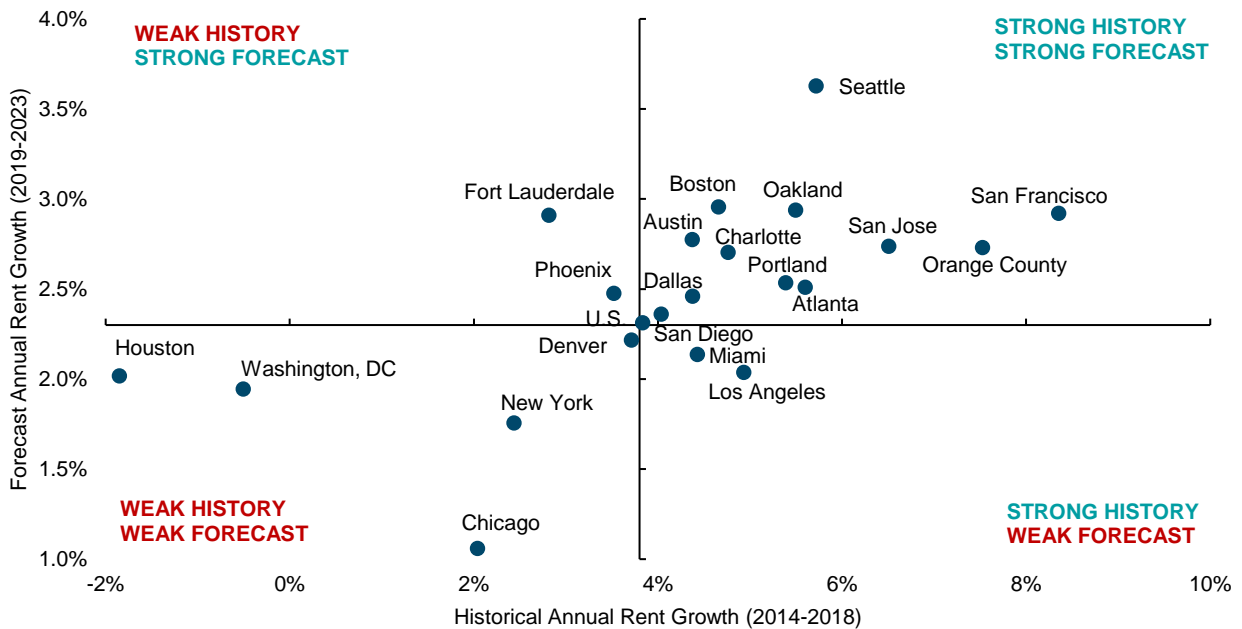
<sup>64</sup> JLL, as of 3Q18. Top leases include leases larger than 20,000 SF.

<sup>65</sup> Green Street Advisors, as of November 2018.

<sup>66</sup> JLL, as of 3Q18.

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EXHIBIT 18: OFFICE RENT GROWTH



Sources: DWS. As of December 2018. No assurance can be given that any forecast or target will be achieved.

## 8.2 Outlook and Strategy

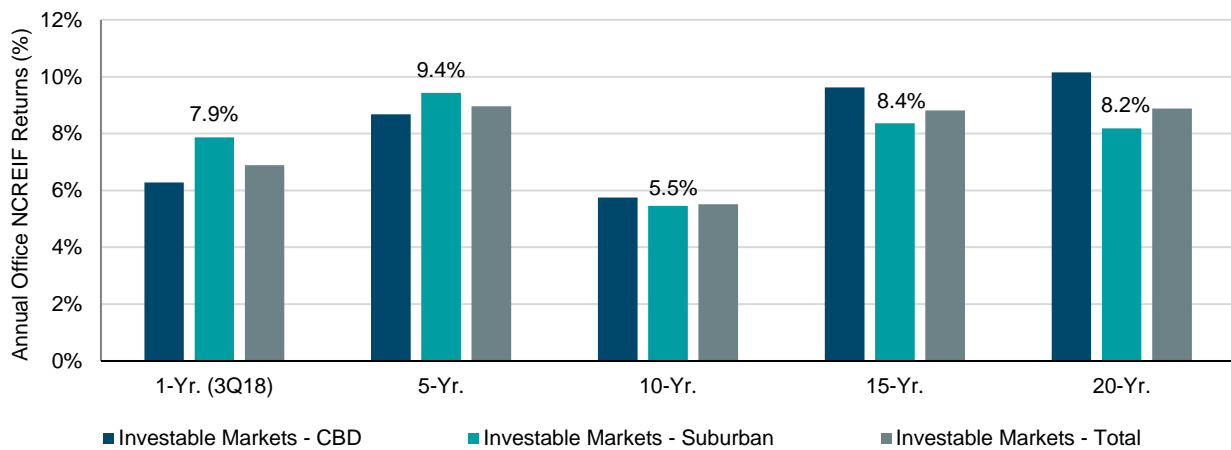
After a strong 2018, the U.S. economy is expected to moderate as the effects of tax cuts begin to fade and higher interest rates begin to diminish activity in certain industries. Office sector performance is expected to continue with modest growth for several more years as it advances through the late-growth phase of the real estate cycle. 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 new construction may 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 cap-ex burden and persistently low cap rates across U.S. gateway markets and major CBDs create risk and return imbalances, with future returns highly sensitive to changes in NOI. We are becoming increasingly cautious and selective as it relates to new investment opportunities, the quality of the rent roll and the tenant risk profile. Space preferences are evolving with tenants favoring 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 amenities, adjacent to major CBDs and hosting a high concentration of well-educated workers. Relative to other suburban markets, 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 cap rates, rising expenses and tepid demand, total return performance in core-gateway CBD markets has been moderating. Going forward, low housing affordability in gateway markets may limit the urban demographic growth, with workers likely to look for housing in the inner suburbs that offer both affordability and access to an urban living style. 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>67</sup>

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



Sources: NCREIF; DWS. As of September 2018.

- Select Regional Metros:** High rent growth across tech and early recovery markets is expected to moderate, with regional metros, particularly in the high-growth Sunbelt markets, continuing to outperform. These are metros with strong demographic and office-using employment prospects, as well as affordable business and housing costs. Over a long period, 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, Phoenix, Charlotte, Fort Lauderdale and Orange County where rent growth is likely to outperform the Investable Markets average.<sup>68</sup>
- Knowledge Based and Innovation Metros:** The growth of knowledge economies has been perhaps the most important factor in generating the ongoing war for talent, where competitive advantage is driven by the ability to generate innovation. Companies such as Amazon and Apple 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 the traditional office sector, particularly in life science and technology. Moreover, the collaboration between private companies and local universities is fostering innovative ecosystems that will likely further attract talent and generate office demand. We believe that well-connected cities such as Boston, Austin, and Seattle are well positioned to perform.

<sup>67</sup> NCREIF, DWS, as of December 2018.

<sup>68</sup> DWS, as of December 2018.

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## Appendix 1: U.S. House Portfolio

The DWS House Portfolio presents the allocation by property sector for core portfolios in the United States which we believe would outperform the NPI. 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 NPI. The analysis results in an active overweight to the industrial sector, a market weight to the apartment sector, and an underweight to the retail and office sectors.

Sector	NPI Weights	ODCE Weights	Research Perspective	House Portfolio	Active Bet (vs NPI)	Recommended Range
<b>Apartment</b>	24%	25%	<ul style="list-style-type: none"> <li>_ Economic expansion fueling household formation.</li> <li>_ Construction appears to be peaking, albeit at a high level.</li> <li>_ Ageing Millennials might seek homeownership.</li> <li>_ But tax reform and rising home prices / mortgage rates a deterrent.</li> </ul>	23%	(1%)	18% - 28%
<b>Industrial</b>	16%	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 demand should still outpace. 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>	26%	+10%	21% - 31%
<b>Office</b>	36%	35%	<ul style="list-style-type: none"> <li>_ Office-job growth strong, but limits to further growth amid low unemployment.</li> <li>_ Densification a structural headwind to absorption.</li> <li>_ ODCE in-place rents approximately 10% below market, supporting healthy NOI growth.</li> </ul>	31%	(5%)	26% - 36%
<b>Retail</b>	23%	19%	<ul style="list-style-type: none"> <li>_ Returns are 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>	20%	(3%)	15% - 25%
<b>Other</b>	1%	4%	N/A	0%	(1%)	0%

Source: NCREIF; DWS. As of December 2018.

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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 December 2018.

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- 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

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# Research & Strategy—Alternatives

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