Marketing Material*

August 2019 / Research Report

GLOBAL REAL ESTATE STRATEGIC OUTLOOK

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1 / Executive Summary

Two key themes are playing out in the global economy. First, global growth is slowing and it appears to be late cycle for many major economies. The yield curve in the U.S. has inverted at times this year, thus indicating that risk of recession has increased in the next 12-24 months. Second, monetary policy has continued to converge on the path of easing globally. We expect the Federal Reserve to implement one more rate cut later in 2019 after a 25 bps cut in July. The ECB is also expected to remain accommodative through 2020 given muted inflation pressures and concerns over growth in Europe. We expect “real” rates (interest rates minus inflation) to remain low over the next five years, supportive for real estate returns.

Real estate continued to perform well with the Global Real Estate Fund Index returning 7.6% year-over-year in Q1 2019, better than world equities at 4.8%[1] and global fixed income at 5.3%.[2] Going forward, we are forecasting more muted real estate returns globally, however, we believe returns will still be competitive compared to equities and fixed income.

We remain constructive on real estate for several reasons. First, despite end-of-cycle fears, labor markets in many countries globally are healthy with low unemployment rates and wage growth. Second, initial yields relative to sovereign bond yields remain above their long-term average globally and provide reasonable risk premium compared to bonds. While this may not be the case for a number of countries or sectors, the global average remains attractive. Third, construction activity remains fairly disciplined in the aggregate and we see supply being limited due to factors such as rising construction costs. Fourth, leverage remains low for real estate funds at around 20% for the U.S., Europe and Asia Pacific[3], and for publicly-traded REITs in the U.S. at around 30%.[4]

Across the three regions, we expect Asia Pacific and U.S. real estate to outperform European real estate over the next five years. However, returns diverge across markets and sectors in each region. We are more positive on the industrial sector across the three regions as we see supportive structural trends especially with the growth of e-commerce. In addition, industrial still provides wider yields compared to other property types in many markets. For example, in Australia, industrial initial yields at 6.1% on average is 250 basis points (bps) higher than Australia office initial yields. In contrast, we are less constructive on the retail sector and forecast low returns in many European markets, such as shopping centers in Germany.

Many regional markets and overlooked sectors can still present good opportunities for better relative returns, such as the office sector in regional Japanese cities, and industrial in Miami and Portland. Prime assets such as CBD office in gateway markets have attracted capital from global investors, which has lowered yields on these core assets and also lowered our expected returns and we see higher rates in these markets. We see limited rent growth for many core office markets over the next five years as employment will likely grow at a slower pace as many countries have reached full employment levels.

[1] MSCI World Equity Index, year-over-year total returns as of 7/17/2019
[2] Bloomberg Barclays Global Aggregate Index, year-over-year total returns as of 7/17/2019
[3] Global Real Estate Fund Index, data from NCREIF, INREV and ANREV as of Q1 2019.
[4] DWS-calculated aggregate leverage for publicly-traded REITs.

2 / Regional Summary

U.S. economic growth was robust at 3.1% in the first quarter of 2019.[5] However, we do not expect the 3%+ growth rate will be sustained due to reduced effects from tax cuts, trade uncertainty, and slower global growth. The unemployment rate remains low at 3.7%[6] and consumer confidence remains close to cyclical highs. Wage growth is rising and household wealth is improving. While the economy is still doing well, the yield curve is inverted which points to rising probability of recession after next year. The Federal Reserve has communicated it can employ a more accommodative monetary policy and has cut rates by 25 bps in July. We expect a second rate cut later this year. Over the next five years, we expect U.S. unlevered total returns of 5.0%, led by the industrial sector at 7.1%, followed by the apartment sector at 4.8%. We prefer many regional markets such as industrial in Denver, Orlando and Portland, and apartments in Austin, Houston and Nashville. We are underweight on certain core markets such as office and retail in New York and Chicago, and apartments in San Francisco.

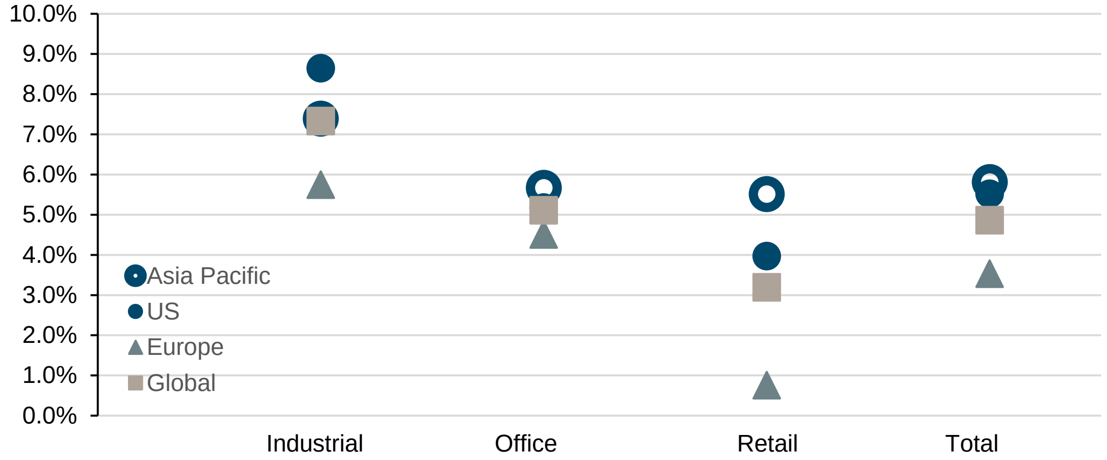
The Eurozone economy expanded by 0.4% in Q1 2019. Growth during Q2 2019 was supported by household spending and investment, confirming that robust domestic demand continues to underpin activity. European PMI's are decelerating and the manufacturing sector remains in contractionary territory. The labor market remains tight and are driving a pick-up in wages which are rising at their strongest pace in a decade. Still, the ECB has reversed course from a year ago and may reduce rates into further negative territory. We expect real estate returns to be generally muted in Europe compared to in the U.S. and Asia Pacific at 4.0% over the next five years. However, we have upgraded our view from 3.5% to 4.0% in light of further easing by the ECB. The retail sector continues to be challenged by structural shifts, namely e-commerce, and thus we have lowered return expectations for shopping centers in Germany, the U.K., France and the Netherlands. Conversely, the industrial sector remains strong and we are overweight in many markets such as Dublin, Paris, Amsterdam, and Glasgow. We favor the office sector in Warsaw, Berlin and parts of London.

Macroeconomic conditions in Asia Pacific slowed during the first half of 2019. Many economic indicators have weakened but unemployment rates have either held steady or continue to decline, particularly in Japan and Australia. Inflationary pressures remain low and monetary policy continues to be accommodative. We see risk factors from uncertainties surrounding China's growth and economic health to global trade risks, which could adversely impact regional trade and export demand. On the aggregate, we expect Asia Pacific real estate to generate unlevered returns of 5.5-7.6% over the next five years. We are very positive on Australia's potential to generate good real estate returns given its diversified economy and strong demographic trends. We expect Australian real estate returns of 6.1% over the next five years, which is also driven by the industrial sector at forecasted 7.1% returns. Other markets and sectors that we see attractive are Japan due to the wide initial yield spread to sovereign bond yields, and Singapore industrial, while offices are improving.

We favor more defensive strategies given the late cycle environment. More specifically, we prefer apartments, necessity-based retail, and industrial over the office sector. We also favor longer lease terms with strong credit. As seen in each regional sector, we see greater dispersion of results across markets and sectors. .

[5] Bureau of Economic Analysis (BEA), June 2019
[6] Bureau of Labor Statistics, July 2019

EXHIBIT 1: GLOBAL RETURNS BY SECTOR (5-YEAR TOTAL RETURN FORECAST NET OF CAPITAL COSTS, 2019-2023)



Sources: DWS. As of August 2019.
Note: Forecasts may not be a reliable indicators of future returns. No assurance can be given that any forecast or target will be achieved. Forecasts are based on assumptions, estimates, opinions, models and analysis which may prove to be incorrect.

3 / Global Economic and Political Highlights

Global economic growth has continued to slow, and trade tensions have clearly contributed to the growth moderation. The IMF has revised down its forecast for global growth even further to 3.2% in 2019 and 3.5% in 2020 in July 2019, lower than the April 2019 projections by 0.1%. Factors contributing to the lower revised forecast includes escalated trade tensions, lower growth in China and faltering momentum in Europe. As a result, it seems a global monetary easing cycle has begun with the Fed, ECB, and central banks in Australia, South Korea, Malaysia, Indonesia, New Zealand and India all reducing interest rates.

Trade tensions have worsened during 2019 and the bilateral trade volume between the U.S. and China declined; U.S. exports to China declined by 19% during the first five months of 2019, and US imports from China declined by 12%.[7] We believe the impact of the trade war has been deflationary, as trade constraints in the presence of excess capacity results in weak pricing power. This would explain why commodity prices such as oil, agricultural prices, and inflation has been muted. WTI crude oil prices dropped 21.9% year-over-year from $74 a year ago to $58 as of July 8, 2019. The Bloomberg agriculture commodity index declined by 6.7%. Inflation remains muted in many major economies globally. U.S. Consumer Price Index (CPI) was low at 1.63% during the first quarter of 2019, 59 bps lower than a year ago.[8] Western European CPI was also muted at 1.5% during the first quarter of 2019, 27 bps lower than a year ago.[8] The U.S. and China have ongoing discussions about trade, and the threat of new tarrifs remain.

Despite volatile equity and bond markets and decelerating growth, unemployment remains low and consumer spending is blostering economic growth. The U.S. unemployment rate stands at 3.7%, lower than the 20-year average of 5.9%.[9] The Eurozone unemployment rate stands at 6.4% as of the first quarter of 2019 with certain key markets showing unemployment rates close to all-time lows such as Germany (3.2%) and United Kingdom (3.8%). The unemployment rate in the Asia Pacific region is also low at 3.6% as of Q1 2019, with many major economies showing unemployment rates at cycle-lows such as in Japan (2.4%), Singapore (2.2%) and South Korea (4.0%). Indeed, many core markets have displayed healthy occupier trends for office space, such as in Frankfurt, San Francisco, Sydney, and Tokyo.

Economic activity, as reflected by the Purchasing Managers Indices (PMI), reflect contraction for manufacturing activity, but continued expansion for services activity. Some manufacturing PMI levels have dipped below 50 in the Eurozone. However, economic activity in more mature markets are centered more on services than manufacturing. The J.P. Morgan Services PMI was 51.9 in June 2019, which signal expanding activity in the services sector.

[7] U.S. Census Bureau
[8] Oxford Economics
[9] Bureau of Labor Statistics

EXHIBIT 2: MANUFACTURING PMI HAS BEEN WEAK, BUT SERVICES IS STILL EXPANDING

	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
U.S.	60.0	58.4	60.8	59.5	57.5	58.8	54.3	56.6	54.2	55.3	52.8	52.1	51.7
Germany	55.9	56.9	55.9	53.7	52.2	51.8	51.5	49.7	47.6	44.1	44.4	44.3	45.0
France	52.5	53.3	53.5	52.5	51.2	50.8	49.7	51.2	51.5	49.7	50.0	50.6	51.9
Italy	53.3	51.5	50.1	50.0	49.2	48.6	49.2	47.8	47.7	47.4	49.1	49.7	48.4
UK	54.0	53.9	52.9	53.7	51.1	53.3	54.3	52.8	52.1	55.1	53.1	49.4	48.0
Sweden	53.3	57.3	55.7	54.7	55.1	59.6	52.9	53.6	54.9	54.9	54.9	55.0	57.1
Japan	53.0	52.3	52.5	52.5	52.9	52.2	52.6	50.3	48.9	49.2	50.2	49.8	49.3
Singapore	52.5	52.3	52.6	52.4	51.9	51.5	51.1	50.7	50.4	50.8	50.3	49.9	49.6
Taiwan	54.5	53.1	53.0	50.8	48.7	48.4	47.7	47.5	46.3	49.0	48.2	48.4	45.5
South Korea	49.8	48.3	49.9	51.3	51.0	48.6	49.8	48.3	47.2	48.8	50.2	48.4	47.5
China (HSBC)	51.0	50.8	50.6	50.0	50.1	50.2	49.7	48.3	49.9	50.8	50.2	50.2	49.4
India	53.1	52.3	51.7	52.2	53.1	54.0	53.2	53.9	54.3	52.6	51.8	52.7	52.1
Brazil	47.0	50.4	46.8	46.4	50.5	51.3	51.9	52.0	52.2	52.7	49.9	47.8	48.2
Global													
Manufacturing Ind.	52.9	52.7	52.5	52.1	52.0	51.9	51.4	50.8	50.6	50.5	50.4	49.8	49.4
Non-manufacturing	54.6	54.0	53.5	52.9	53.4	53.7	53.0	52.6	53.3	53.7	52.7	51.6	51.9
Global Composite	54.2	53.7	53.4	52.8	53.0	53.1	52.7	52.1	52.6	52.7	52.2	51.2	51.2

Source: Bloomberg. As of July 2019.

U.S. economic growth was robust at 3.1% in the first quarter of 2019.[10] However, economic growth is not expected to sustain the roughly 3% annualized pace due to reduced effects from the tax cuts, trade uncertainty, and slower global growth. Oxford Economics expects U.S. growth to slow to 2.6% in 2019 and 1.8% in 2020. As mentioned before, the unemployment rate remains low at 3.7%, consumer confidence remains good close to cyclical highs[11], wage growth is rising[12] and household wealth is improving.[13] In many ways, the economy is still doing well. However, we see medium-term risks as the yield curve has inverted, which point to a rising probability of recession after next year.

The Eurozone economy grew by 0.4% in the first quarter, and growth is expected to decelerate slightly to 0.3% in the second quarter before settling at a pace of 0.4% for the last quarters of 2019.[14] Economic activity in the second quarter of 2019 was supported by household spending and investment, confirming that robust domestic demand continues to underpin activity. We expect growth to continue to be supported by domestic demand as tighter labor markets are driving an increase in wages which are rising at their strongest pace in a decade. Rising wages coupled with muted inflation should provide a boost to real incomes, supporting household spending. Eurozone GDP growth is expected to be 1.3% in 2019 and 1.4% in 2020, lower than 1.8% in 2018.[15]

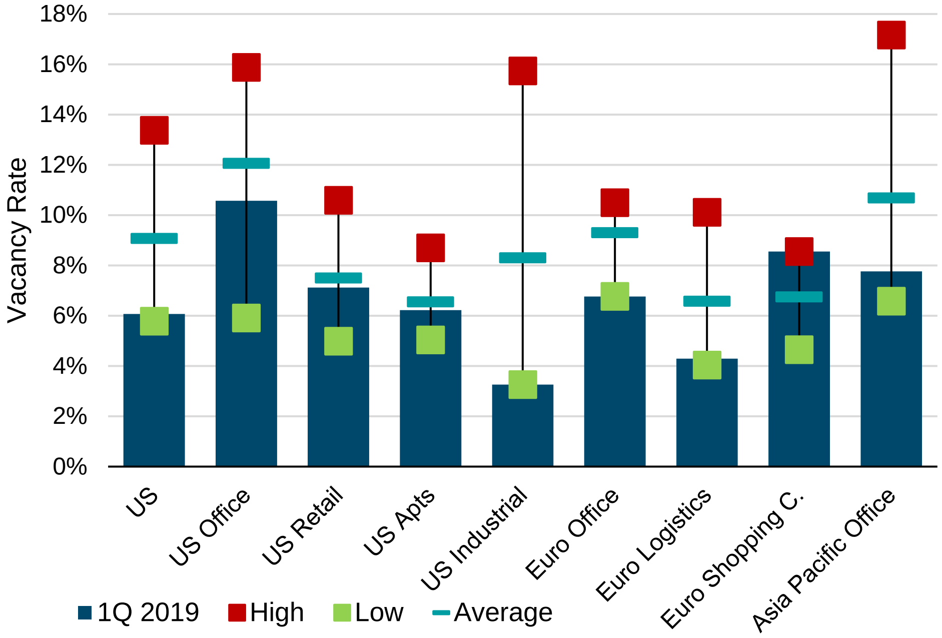
Macroeconomic conditions in Asia Pacific continued to slow down in the first half of 2019 along with signs of weakening economic indicators. However, unemployment rates have either held steady or continued to decline, particularly in Japan and Australia. Inflationary pressures remain low. We see persisting risk factors from uncertainties surrounding China's growth and economic health to global trade risks, which could adversely impact regional trade and export demand. Baring any shocks or unexpected shifts in the baseline, regional economic growth is expected to decelerate from 5.3% in 2018 to 5.1% in 2019.[16]

In light of full employment and balanced supply conditions, real estate fundamentals remain positive. As seen in Exhibit 3, office sector vacancy rates are below historical average for many markets, and many core markets such as Frankfurt, San

[10] Bureau of Economic Analysis
[11] Conference Board Consumer Confidence Index.
[12] Wage growth was 3.9% in June 2019, from Bureau of Labor Statistics
[13] Net worth for households increased by 4.5% during Q1 2019, from Federal Reserve
[14] Oxford Economics
[15] Oxford Economics, Country Economic Forecast, "Eurozone", June 12, 2019
[16] IMF World Economic Outlook, April 2019

Francisco and Tokyo have displayed healthy occupier trends. Vacancy across all three regions are near 20-year lows for office, industrial and apartment sectors. In contrast, higher vacancy in retail reflects the structural headwinds due to the growth in e-commerce. Going forward we expect vacancy to increase slightly by 50 bps in the aggregate globally on the back of new supply. Note that supply remains in check as inventory growth averages 1.6% of total stock on average. On the demand side, employment growth is expected to average 1.0% annually over the next five years, providing stable demand drivers. In those sectors and regionas where vacancy rates remain below average, we expect rent growth when adjusted for inflation is likely to remain above average at least over the next 12 months.

EXHIBIT 3: VACANCY RATES IN THE U.S., EUROPE AND ASIA PACIFIC ARE CLOSE TO ALL-TIME LOWS



Source: DWS. As of August 2019
Note: The long-term average for U.S. vacancy data is 31 years (from Q1 1988 to Q1 2019), European vacancy data is 10 years (from Q1 2009 to Q1 2019), and Asia Pacific office data is 19 years (from 2000 to Q1 2019).

Looking forward, there could be a case for interest rates globally to remain low for an extended period of time. Indeed, market participants have revised down interest rate expectations throughout 2019. At the beginning of the year, our CIO Office forecasted the U.S. 10-year Treasury to be 2.30% by June 2020, and that forecast has since been revised down to 2.00%. We see a variety of factors contributing to the "lower for longer" scenario. Aging demographics are prevailing in many major economies globally and can impact growth and inflation in two ways. First slower population growth can typically lead to lower GDP growth. Second, rising median age can lead to an increase in the savings rate and push interest rates lower.

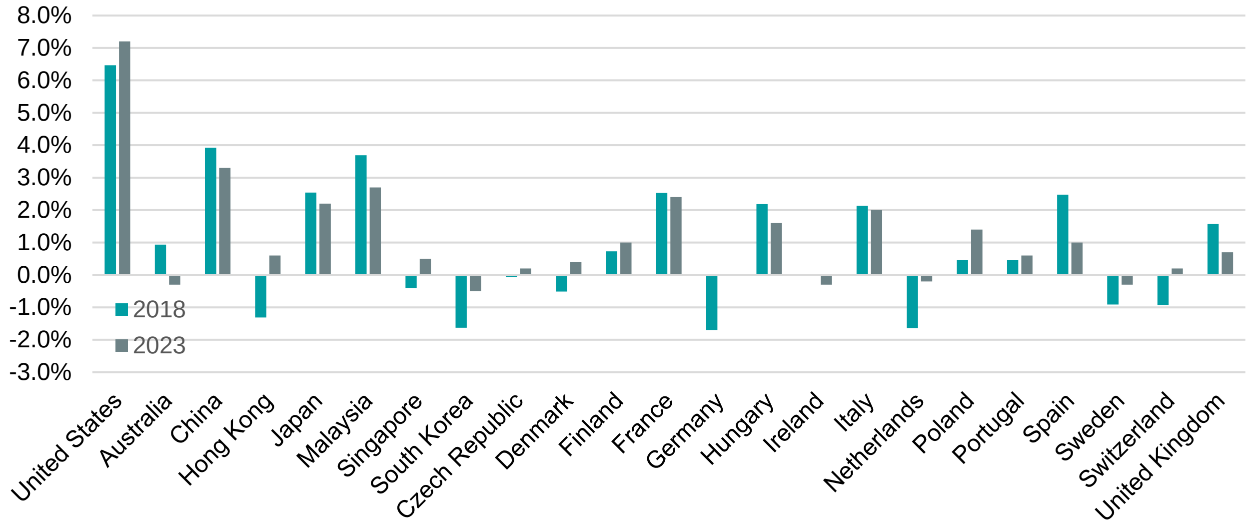
U.S. population growth has decelerated to 0.62% for the year ending July 2018, according to the Census Bureau, yet remains well above the rate of population growth in Europe as a whole. The growth rates for certain countries such as Italy was negative in 2017. Population growth in 2017 was estimated to be 0.4% in Germany and 0.6% in the United Kingdom.[17] On a positive note, European countries are seeing urban in-migration which supports property demand in core markets. Asia Pacific countries have some of the best demographic trends in the world, but for some more mature countries such as Japan and Singapore, population growth is negative or low at -0.2% and 0.1%, respectively.[17]

Also, fiscal austierity prevails, especially in Europe, which leads to slower economic growth. Since the financial crisis, many countries, especially those in Europe, have adopted a more restrained spending regime to reduce budget deficits. This fiscal austerity has arguably held back growth despite the ECB's accommodative monetary policy.[18] As we approach a late cycle

[17] Oxford Economics
[18] International Institue of Finance, November 2018

stage, many countries may choose to limit government spending to ward off the risk of rising debt-to-GDP ratios. If so, we see little impetus for growth exceeding our expectations and interest rates would likely remain low. More recently though, Germany has begun to discuss increasing government spending to support growth, but it remains to be seen if such measures will be implemented.

EXHIBIT 4: GOVERNMENT BUDGET DEFICIT AS SHARE OF GDP



Source: Oxford Economics (based on fund of funds data), DWS. As of July 2019.

Third, global trade issues have resulted in excess capacity in the short run which is disinflationary. For example, tarrifs on U.S. soybean exports were implemented approximately a year ago in July 2018 and consequently, exports have declined by 23.5% year-over-year according to the USDA and soybean prices have declined approximately 6% year-over-year as of July 2019 according to the Bloomberg Soybean Commodity Index. The full cost of tarrifs are also often not passed onto consumers with sellers or manufacturers bearing most of the burden, and it remains to be seen if the quantity of goods sold is reduced such that total revenue declines.

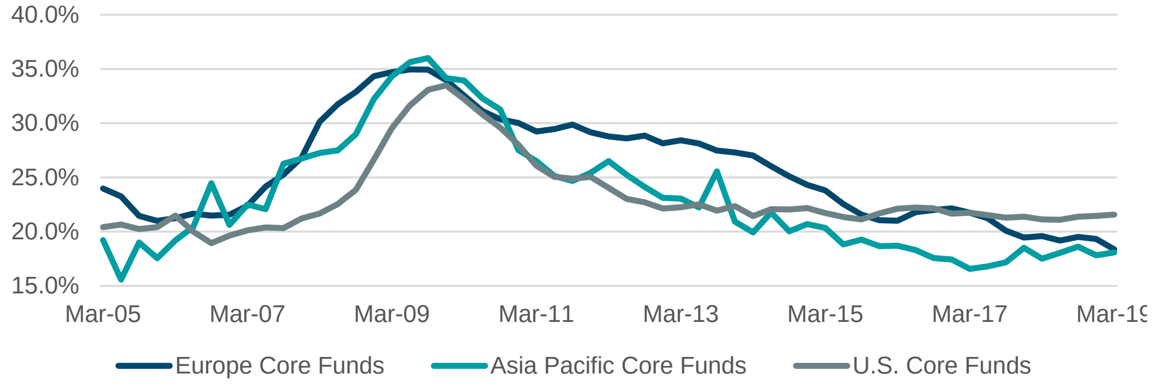
The consequences of the “lower for longer” interest rate environment to real estate are two-fold. First, the current low cap rates may compress even further, and yet cap rate spreads over sovereign bond yields remain wide. We are forecasting exit cap rates to expand 10-40 bps over the next five years on aggregate globally, consistent with expectations for sovereign bond yields to slowly move higher. In all regions, we are forecasting cap rate spreads to narrow in the next five years but still remain higher than the 20-year average (except for the U.S.). If interest rates remain low, cap rates may not expand and cap rate spreads may remain wide. Lower cap rates compared to expectations would equate to higher total returns for real estate investors. However, lower interest rates also go hand in hand with lower inflation, which means property investors will likely experience less rent growth.

4 / Macroeconomic Implications to Real Estate

We noted in our prior strategic outlooks that there are four "killers" of a real estate cycle: rising "real" or inflation-adjusted rates, high supply with an overabundance of new construction, excess lending activity, and economic recessions.

As mentioned in the prior section, risk of recession has increased. However, we believe that if a recession does occur, the economic impact will be moderate and the real estate impact will be more measured, especially when compared to prior cycles. Leverage has been low in this cycle for many real estate funds and publicly-traded REITs. The NCREIF Open-End Diversified Core Equity Index (ODCE), which represents U.S. core open-end real estate funds, had leverage of 21.6% as of Q1 2019. We calculate that publicly-trade U.S. REITs had leverage of 31% in May 2019. These leverage levels are relatively low when compared to history. Leverage levels for core funds in Europe and Asia Pacific are similarly low as well, at 18.4% and 18.1%, respectively.

EXHIBIT 5: CORE FUNDS LEVERAGE LEVELS IN EUROPE, ASIA PACIFIC AND THE U.S.



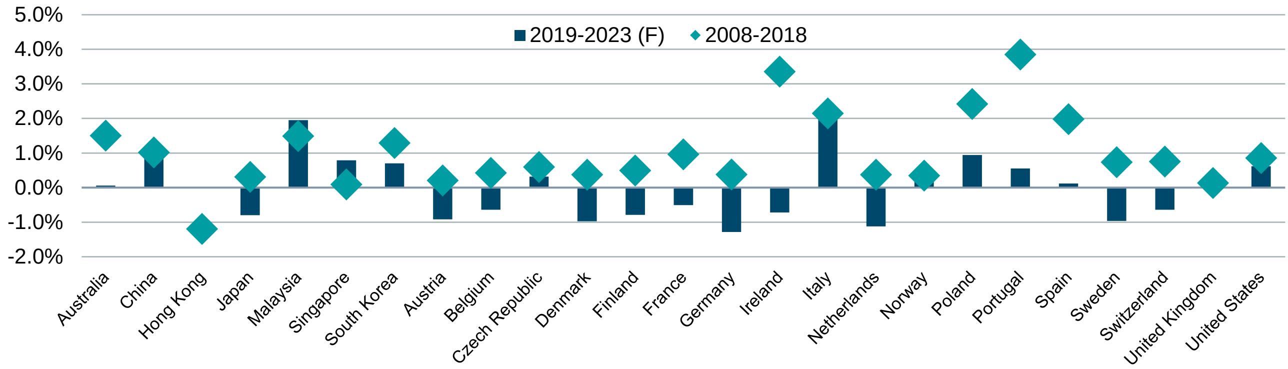
Source: ANREV, INREV and NCREIF. As of March 31, 2019.

Construction or new supply has been relatively muted in many markets in this cycle. The retail sector stands out as a property sector with excess supply in some markets due to structural headwinds and tenancy issues, which has led to higher vacancy especially for lower quality malls and non-necessity retail. In the U.S. construction as a percentage of GDP was 0.9% in June 2019, in-line with the 20-year average. In Europe office construction starts was 2.1% of stock, while higher than the historical average of 1.9%, is still below the cycle high in December 2007 at 3.2%.[19] However, we note that there are some markets with high amounts of new construction, such as in Warsaw, Poland and Guangzhou, China where inventory growth is expected to be 4.4% and 11.0%, respectively, over the next five years.

Lower real yields (10-year sovereign bond yields minus inflation) have typically led to stable-to-higher real estate returns and vice versa. Real estate returns are typically supported in a low real yield environment as real estate becomes a more appealing asset class compared to fixed income investments. 10-year real yields have remained fairly low for a number of markets we cover, and forecasted real sovereign bond yields are lower compared to historical averages. Indeed, many European markets and certain Asia-Pacific markets remain well below average, while the U.S. is expected to remain close to its long-term average.

[19] PMA

EXHIBIT 6: FORECASTED REAL SOVEREIGN BOND YIELDS BY COUNTRY REMAIN BELOW HISTORICAL AVERAGES FOR MANY ECONOMIES (10-YEAR YIELD – INFLATION)

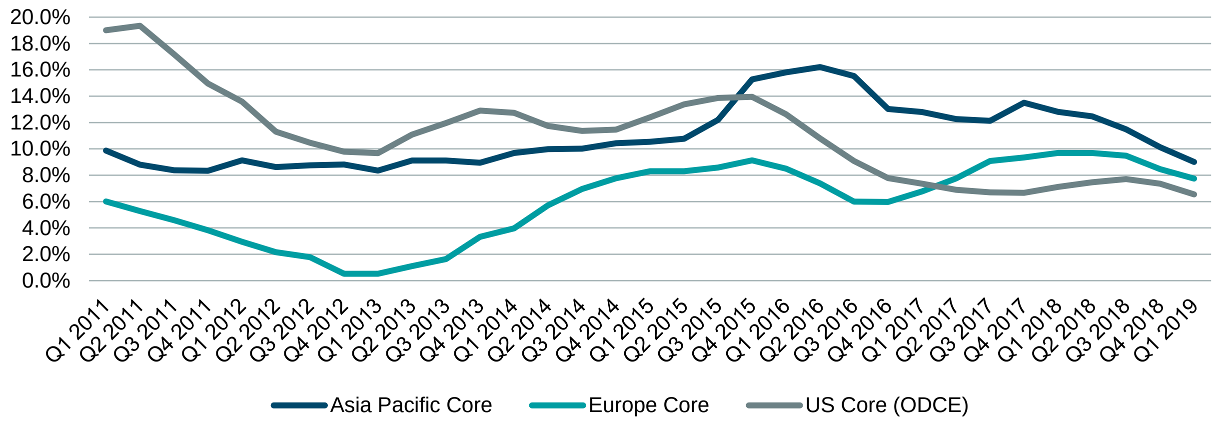


Source: DWS, Oxford Economics. As of July 2019.
Sorted by region and alphabetically by country.
Note: Forecasts are not reliable indicators of future returns. No assurance can be given that any forecast or target will be achieved. Forecasts are based on assumptions, estimates, opinions, models and analysis which may prove to be incorrect.

4 / Year in Review and Mid-Year 2019 Total Return Outlook

As of Q1 2019[20], the Global Real Estate Fund Index (GREFI) once again shows Asia Pacific core returns leading at 9.0% year-over-year, followed by European core funds at 7.7% and the U.S. core funds at 6.5%. Note that returns across all three regions are moderating. The Asia Pacific funds index continue to be dominated by Australia core funds at 70% of the index, followed by China at 8% and Japan at 6%. Australia is one of the more mature, transparent, and growing real estate markets in Asia Pacific with a healthy amount of foreign investor participation. Australia has experienced strong real estate performance driven by reasonable economic growth and healthy real estate demand, although the Reserve Bank of Australia has recently voiced concerns with the economy and thus cut its target rate twice in June and July 2019. The United Kingdom comprises the largest share of European real estate funds at 26%, followed by Germany at 19% and the Netherlands at 18%. Looking ahead over the next five years, we expect Asia Pacific real estate returns to continue to do well, followed by the U.S. European real estate returns are expected to continue to be supported by low interest rates, but capital appreciation appears to be limited.

EXHIBIT 7: GREFI DATA SHOWS AN OUTPERFORMANCE OF ASIA PACIFIC CORE FUNDS VS. EUROPEAN AND U.S. CORE FUNDS



Sources: ANREV, INREV, NCREIF, As of July 2019

The GREFI returns in the exhibit above are leveraged returns (c.20% in each region). For unleveraged real estate returns, we refer to returns series produced by MSCI and NCREIF (for the U.S.). Returns for most countries are moderating. Australia's 1-year returns at 9.3% is lower than last quarter's 10.9%, and also lower than the 5-year returns at 11.5%. U.S. real estate returns produced 6.8% year-over-year, lower than the 5-year returns of 9.1%. Japan's 1-year returns came in at 6.6%, also lower than the 5-year returns of 7.6%. Japan's returns are still attractive due to high risk premiums given still-low 10-year government bond yields at -0.13% in July 2019.

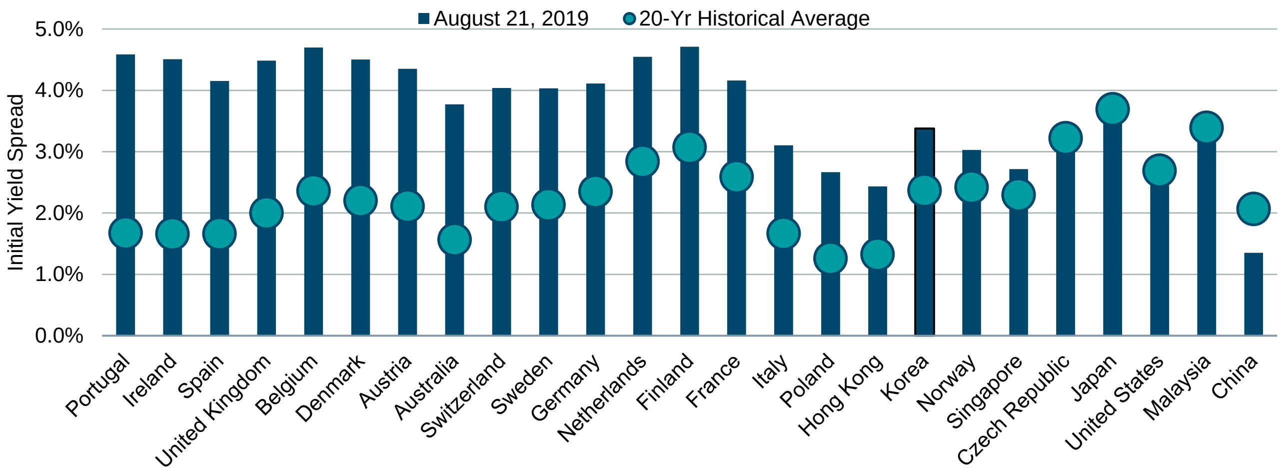
Notable countries with accelerating real estate returns are the Netherlands (14.3% 1-year returns vs. 11.2% 5-year returns), Finland (6.6% vs. 6.2%), and Germany (9.9% vs. 8.3%).

[20] The most recent data available.

Looking ahead, the exhibit below shows current yield spreads compared to historical averages, arranged by the difference in current and historical average initial yield spreads. In many instances, initial yield spreads are still above historical averages. In the U.S., initial yield spreads are lower today compared to historical averages as interest rates have moved higher but initial yields have held steady.or declined slightly for some sectors.

Globally, the average yield spread to sovereign bond yields was 2.70%, 43 bps above the long-term average. After accounting for some yield expansion and slight increase in interest rates, we forecast the 2019 yield spread to sovereign bond yield to be 3.05%. If this occurs as expected, there would still be a 78 bps spread above long-term averages.

EXHIBIT 8: INITIAL YIELD SPREADS FOR MANY COUNTRIES ARE ABOVE THEIR 20-YEAR AVERAGE



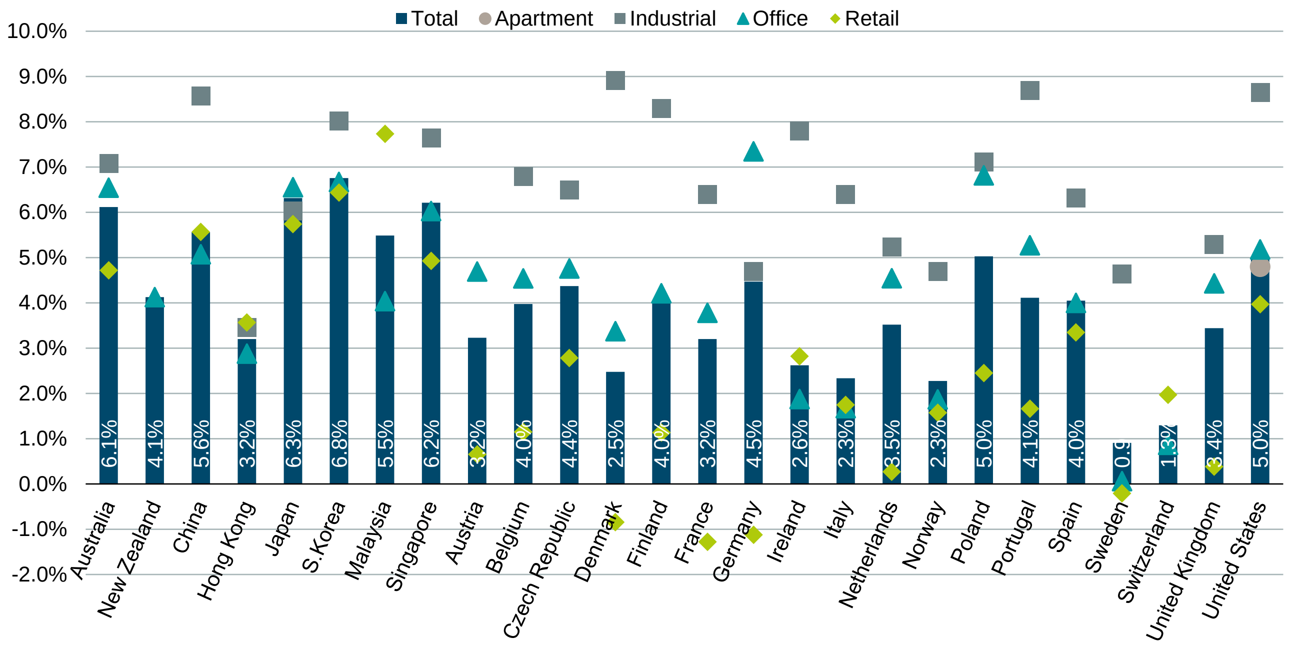
Sources: DWS. As of August 2019. Initial yield spreads for each market based on equal-weight city and sector returns.
Sorted by difference in 2018 initial yield spreads and historical averages.
Note: Past Performance and forecasts are not reliable indicators of future returns. No assurance can be given that any forecast or target will be achieved. Forecasts are based on assumptions, estimates, opinions, models and analysis which may prove to be incorrect.

For our five-year total return forecasts as shown in Exhibit 9, we consider a number of other factors, including the outlook for initial yield spreads, interest rates, occupancy, rent growth and supply and demand dynamics. We perform this analysis at a city sector level and aggregate these to the country level.

As depicted in the exhibit, our expected returns are shown on a property-level unleveraged basis. With a positive spread to lending costs, modest amounts of leverage would provide an additional return premium. Further, across our coverage area, we assume reversionary yields are higher by a range of 10-40 basis points. Given our sovereign bond views, this results in an income risk premium within range of its long term average. Finally, while there are wide variances in rent growth across our markets, the global aggregate average is within a range of inflation of c. 2%. As a result, we expect real estate should provide total returns and risk premiums well ahead of the bond market.

As we mentioned earlier this year, once again, the industrial sector stands out as the best performing sector. Also, in most instances, the retail sector is expected to lag substantially. Finally, the office sector generally falls between the other two sectors.

EXHIBIT 9: AVERAGE ANNUALIZED 5-YR FORECAST RETURNS BY COUNTRY AND SECTOR (2019-2023)



Sources: DWS. As of July 2019. Total returns for each market based on cap-weight sector returns. Forecasts are based on assumptions, estimates, opinions, models and analysis which may prove to be incorrect.
Note: Past Performance and forecasts are not reliable indicators of future returns. No assurance can be given that any forecast or target will be achieved. Forecasts are based on assumptions, estimates, opinions, models and analysis which may prove to be incorrect.

5 / Real Estate Outlook by Region

5.1 U.S. Real Estate Outlook

U.S. real estate continues to perform well. Unlevered core total returns, as measured by the NCREIF Property Index (NPI), measured 6.5% on a trailing four-quarter basis in the second quarter of 2019. 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.

Overall, we believe that the near-term outlook for U.S. real estate is upbeat. To be sure, economic growth has decelerated as the stimulative effects of last year's tax cuts have worn off and trade disputes have weighed on exports and business investment. Yet falling interest rates and rising asset values have bolstered consumer finances — the lynchpin of the U.S. economy. Meanwhile, new supply appears to have peaked amid acute skilled-labor shortages, allowing vacancies to remain anchored near today's historically low levels. Finally, 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 10: 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.

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.

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 13.9% (trailing four quarters) in the second quarter of 2019 were more than double those of any other sector.[21] The strength of the fundamentals is difficult to overstate: the vacancy rate for core industrial property slid to 3.2% (four-quarter moving average), its lowest level on record and well below its 30-year average (8.2%), while Net Operating Income (NOI) growth clocked 8.9% (year-over-year, four-quarter moving average), also near a record.[22] 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

[21] NCREIF. As of June 2019.
[22] NCREIF. As of June 2019.

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 6.8% (trailing four quarters) in the second quarter of 2019, second only to Industrial.[23] Owners are realizing substantial NOI gains (4.2% in the second quarter, year-over-year, four-quarter moving average) as they roll leases signed five or 10 years ago to today's higher market rates.[24] 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 5.8% in the second 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.[25] More recently, homeownership has also ticked up as ageing Millennials have belatedly entered the housing market, although strong household formation has sustained apartment demand.[26] 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.

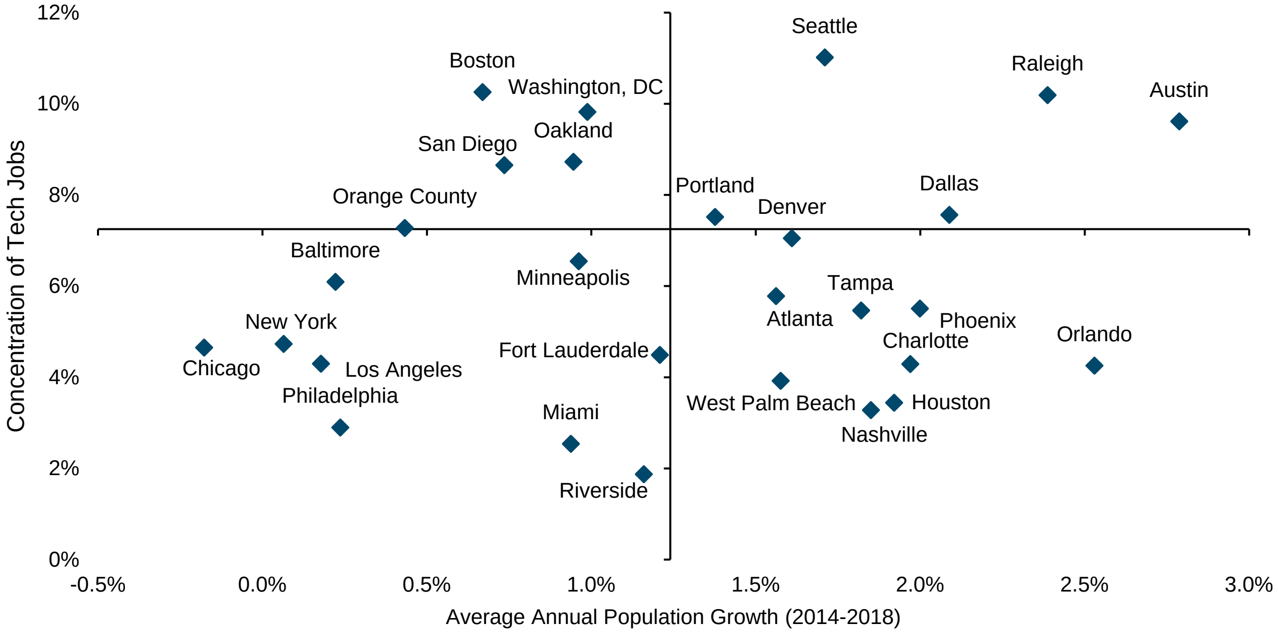
Retail (Market weight): Retail property struggled in the face of relentless e-commerce pressure, recording total returns of just 1.8% (trailing four quarters) in the second quarter of 2019.[27] Yet retail is not a lost cause. Malls, which typically have substantial tenant exposure to apparel and other goods that can be readily purchased online, delivered total returns of 0.0% (trailing four quarters). But neighborhood centers, whose tenant mix typically features more in-demand services, including health care, dining, and fitness, produced returns of 5.0%. 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.

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 11).

[23] NCREIF. As of June 2019.
[24] NCREIF. As of June 2019.
[25] NCREIF. As of June 2019.
[26] Census Bureau. As of April 2019.
[27] NCREIF. As of June 2019.

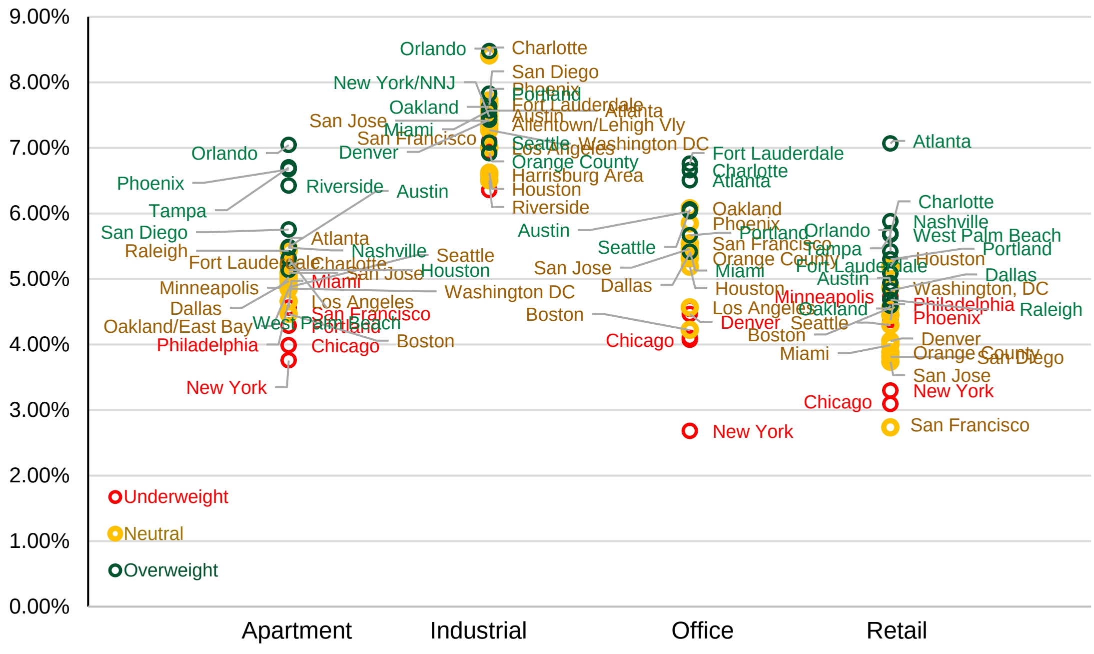
EXHIBIT 11: POPULATIONS GROWTH VS. TECH CONCENTRATION



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

Past performance is not indicative of future returns. No assurance can be given that investment objectives will be achieved. Forecasts are based on assumptions, estimates, opinions, and hypothetical models or analysis which may prove to be incorrect. This information is for informational purposes and should not be construed as a recommendation, offer or solicitation.

EXHIBIT 12: U.S. DISPERSION OF CITY-LEVEL RETURNS BY SECTOR (5-YEAR TOTAL RETURN FORECAST NET OF CAPITAL COSTS, 2019-2023)



Sources: DWS. As of August 2019.

5.2 European Real Estate Outlook

By and large, the European real estate market is in good health. The Spanish, Dutch, German and Parisian office markets have carried through strong occupier momentum into 2019, while European logistics is still seeing unprecedented – albeit still modest – levels of rental growth. However, retail is facing growing headwinds and is struggling with weakening occupier fundamentals, causing us to further downgrade our outlook for the sector.

Following another strong period of investment activity in 2018, this year has got off to a slower start. A number of markets such as Spain, the Nordic region and parts of the CE region are still seeing significant momentum, yet demand for U.K. property continues to fall, with volumes down by more than 30% year-on-year in the first six months of the year.[28]

Overall, it is retail that has borne the brunt of the decline so far this year. In the six months to June 2019, the sector registered its lowest half-year investment total since 2009,[29] while sentiment towards retail investment has also dropped to its lowest level since at least 2001. Conversely, one area that continues to attract significant interest is the living sector, encompassing hotels and residential, as many investors are still looking for defensive assets that offer some protection against wider economic risks. While no sector can be immune to the economic cycle, such investments can offer some protection against wider economic risks at this stage in the cycle.

With the exception of retail, there has been relatively little deviation in the downward trend of European real estate yields over the past year. European average prime shopping centre yields have risen by 20 basis points over the past year[30] as investors increasingly shun the sector, yet prime yields for offices (3.60%) and logistics (4.85%) are both at record lows.[31] In fact, logistics and shopping centres are now priced similarly, and we expect that in the second half of the year, average prime logistics yields will dip below shopping centres for the first time. At the country level, while yields have seen relatively little movement in the United Kingdom, they continue to trend downwards in Germany and France. The strongest compression is currently being seen in CE offices as investors look for additional income return, as well as Nordics logistics, attracted by the region's strong consumer fundamentals.

In general we still anticipate that European returns will begin to moderate across the majority of markets, with retail expected to be a major drag on performance. That said, having lowered our yield outlook for the other sectors, we expect an improved all property return over five years compared to our outlook six months ago, with logistics still the top-performing sector. And in an unprecedented environment of sustained low interest rates, there is still a clear case for investing in real estate, given the returns currently on offer from fixed income investments.[32] What's more, as alternative investments such as private rented residential, hotels and student housing become more and more part of the institutional market, these sectors, which are well positioned to benefit from structural and long-term performance drivers, will have an increasing influence on all property performance.

Office: Despite a moderation in economic growth, the European office market remains in a strong position. Recent demand trends have mirrored the stronger employment growth of recent years, and although we expect a slowdown in the number of new jobs being created, Europe's major cities are forecast to see notably higher rates of employment growth compared to the wider European average,[33] providing support for office take-up in those cities.

[28] RCA, July 2019
[29] RCA, July 2019
[30] Cushman & Wakefield, DWS, June 2019
[31] PMA, DWS, June 2019
[32] Bloomberg, June 2019
[33] Oxford Economics, July 2019

The occupier balance is also being aided by a sticky development market, as developers have remained more cautious than in previous cycles. Currently, rolling annual building starts remain close to 2% of current stock, around 50% lower than in 2007 when occupier conditions were broadly similar. With this in mind, European vacancy rates remain on a downward trend, reaching 6.8% on average in the first quarter of 2019, although a number of markets such as Berlin, Munich and Paris are seeing rates considerably lower than this.

Given current conditions, it's hardly surprising that rents are growing strongly. In the 12 months to March 2019, average European prime rents rose by 3.9%.[34] We do expect to see a modest pick-up in net completions and a moderation in net absorption over the coming years, but with vacancy remaining well below its historical average we are still forecasting nominal rent growth of 2.0% per annum over the next five years, slightly outpacing inflation.

Berlin, Paris CBD, Lisbon and the Spanish markets could achieve some of the strongest growth, while there is strong momentum in the Dutch office markets at the moment, leading to an upward revision to our near-term forecast. We have also upgraded the five-year outlook for the remaining German markets as vacancy remains very low. At the other end of the scale, both Stockholm and Dublin have seen exceptional growth over the past five years, and despite low vacancy and above-average GDP growth we expect stronger development activity and affordability constraints to put a cap on further prime rental growth in both cities.

Retail: The underlying drivers of consumer demand are still showing positive signs in Europe, but structural changes to shopper behaviour are continuing to have a significant negative impact on retail real estate. Having already downgraded our shopping centre rent forecasts six months ago, we have made further negative adjustments to reflect a worsening outlook for the sector.

Even with a sharp drop in construction volumes, weaker occupier demand has led to a long and slow rise in retail vacancy. The European shopping centre stock grew by just 1.2% in 2018 – compared to a 20-year average of almost 4% per year – with this year and next set for average growth of closer to 1%. But over the past ten years, shopping centre vacancy has doubled to 8.6%, a period during which office vacancy has fallen and logistics vacancy has halved. The deterioration in market conditions becomes even starker for small shopping centres (below 15,000 square metres), where vacancy now sits above 15% on average.[35]

Although net store openings remain positive, the rate is falling and retailer profit margins continue to be squeezed.[36] In-store sales volumes are coming under pressure and European prime shopping centre rents grew by just 0.3% in 2018.[37] In this light, we are forecasting growth to turn negative over the next two years, particularly in the United Kingdom and Germany, but also in a number of other markets.

While our retail rent forecasts have been downgraded almost universally, we still believe that markets with much lower rates of online penetration should provide a modest return over the five-year forecast period. Southern European and CE markets are set to outperform in this context; however, we believe that even in these markets both in-store sales growth and rental growth will be modest and increasingly at risk.

Logistics: The European logistics market remains well balanced. The amount of space under construction has been incerasing steadily over the past decade,[38] and rates of speculative development are on the rise. Last year more than 20% of schemes over 10,000 square metres were constructed speculatively – more than double the rate seen at the beginning of the

[34] DWS, PMA, June 2019
[35] PMA, June 2019
[36] PMA, June 2019
[37] Cushman & Wakefield, DWS, June 2019
[38] JLL, May 2019

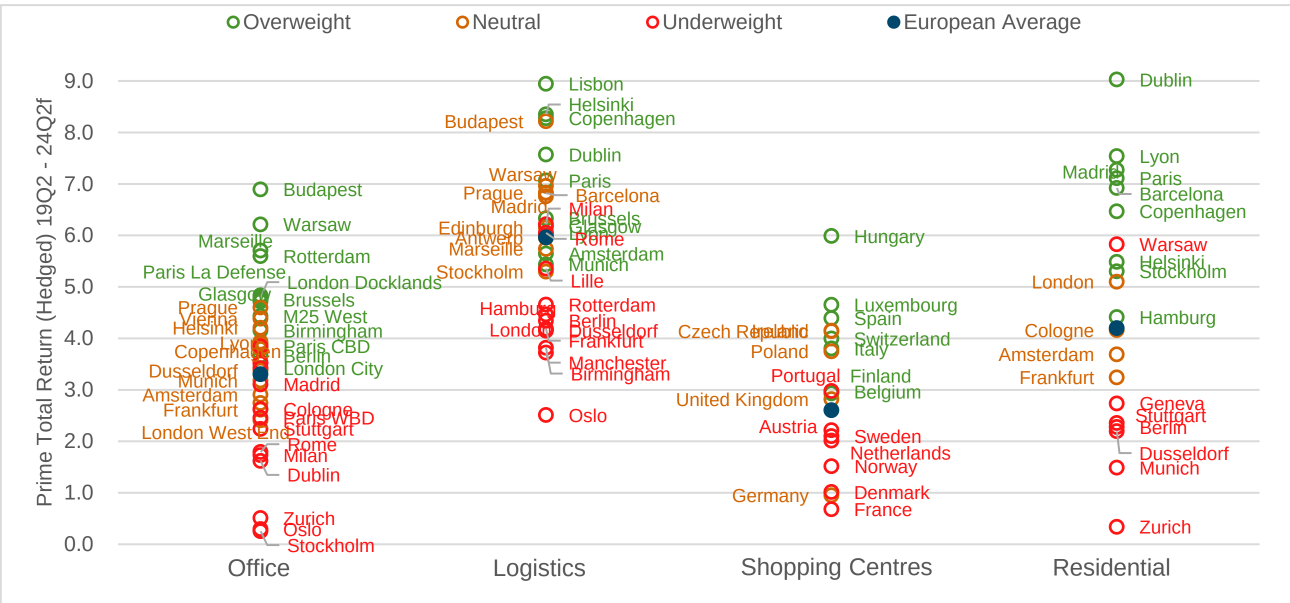
decade. The largest supply of such space is being recorded in the United Kingdom, where almost half of total space was delivered on a speculative basis in 2018, but the CE markets and Germany are also beginning to see stronger speculative activity.[39]

Yet at the same time, take-up of European logistics space continues to impress, reaching a new high in 2018. And with demand outpacing supply, European vacancy has been on a downward trend for the past ten years, recently levelling off at around 4%.[40] In fact, some locations are starting to see a rise in available space, most notably the United Kingdom, where grade A vacancy has been boosted by a strong rise in availability of new space.[41] Nevertheless, European logistics rents are still growing at unprecedented rates. On average, big box logistics properties registered prime rental growth of 2.7% year-on-year in 2019 Q1,[42] which is impressive for a sector that has historically seen little or no rental growth.

Although rents for large distribution warehouses are on the rise, urban logistics units have been growing at even faster rates. Large-scale distribution rents have only just returned to where they were ten years ago, yet over the same period urban logistics rents have grown by almost 25%, with rents in markets such as London and Munich growing by as much as 50%.[43] Over the next five years we expect distribution rents to increase in line with the office market at an average of 2.0% per year, while growth for urban units – where there is greater scope for alternative land use and availability of land tends to be lower – could be significantly higher than this.

For distribution space, we expect London and Paris to be at the top of the pile in terms of rental growth, with Lisbon, Munich, Dublin and the Spanish markets also among the best performers. However, the sector is not without risk, as global trade tensions remain elevated, retailer margins are under pressure and a further pick-up in speculative development could lead to rising vacancy in some markets.

EXHIBIT 13: EUROPEAN DISPERSION OF CITY-LEVEL RETURNS BY SECTOR (5-YEAR TOTAL RETURN FORECAST NET OF CAPITAL COSTS, Q2 2019-Q2 2024)



Sources: DWS. As of June 2019.
Note: Frecasts are not reliable indicators of future returns. No assurance can be given that any forecast or target will be achieved. Forecasts are based on assumptions, estimates, opinions, models and analysis which may prove to be incorrect.

[39] PMA, June 2019
[40] JLL, May 2019
[41] JLL, May 2019
[42] PMA, June 2019
[43] PMA, June 2019

5.3 Asia Pacific Real Estate Outlook

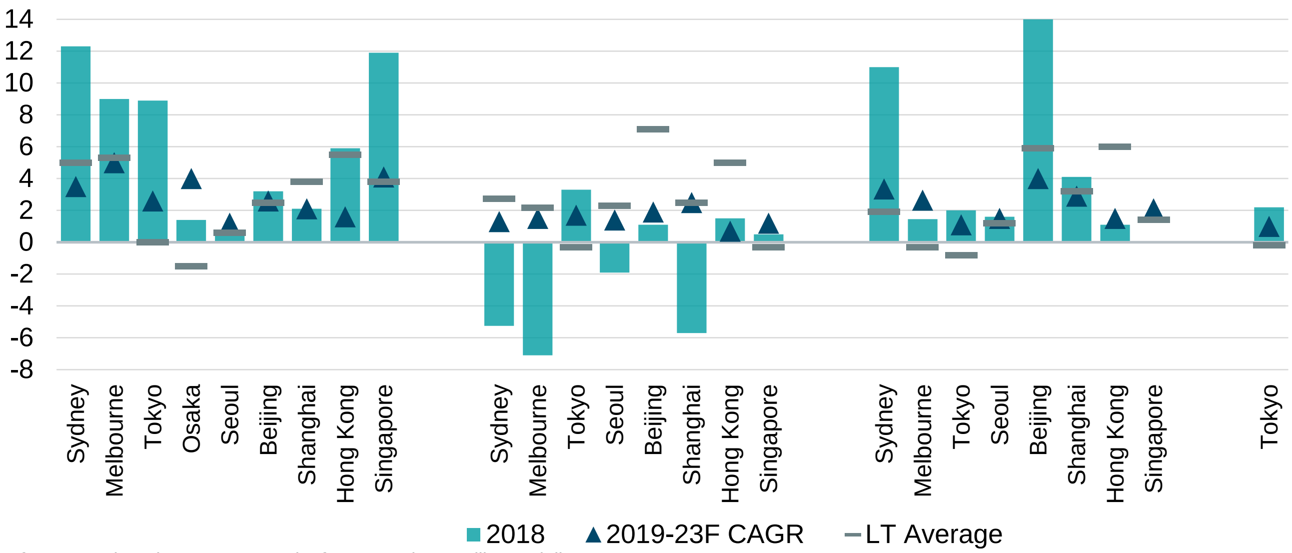
Since the second half of 2018, Asia Pacific experienced a slowdown in macroeconomic conditions which continued into 2019 as global trade headwinds increased. Industrial output and manufacturing conditions slowed in the first half of 2019 as exports cooled significantly, though retail sales and consumption growth remained relatively strong drivers for the economy. The region's economic performance remains partially supported by favourable monetary policies where central banks continue to balance between the risks of high asset prices and stimulating domestic demand amidst low inflationary pressures. Barring any unexpected shocks or shifts in the baseline, Asia Pacific's economic growth is expected to slow slightly from 5.3% in 2018 to 5.1% in 2019[44].

Real estate performance across much of the Asia Pacific region has been relatively resilient on the back of healthy rental growth and sustained albeit marginal cap rate compression in key core markets. The gateway cities of Singapore, Sydney and Melbourne led office rental growth in the region, underpinned by stable occupier demand and limited new supply. Leasing activity also remained healthy in key Tier 1 cities in China, driven by domestic financial services and technology firms. Vacancy rates in Tokyo and regional cities in Japan continued to fall on the back of healthy occupier demand and controlled supply levels. However, performance in other markets including Perth and Seoul remain subdued due to a surge in new supply or weak tenant demand.

Core unlevered aggregate total returns in the region came in strongly at 10% in 2018, compared to 8.4% recorded in 2017 and the three-year average of 9.6% recorded from 2015 to 2017.[45] The weight of capital targeting quality assets in the region has contributed to further cap rate compression (albeit less pronounced compared to the earlier years which led to significant capital gains), especially in Australia and Japan's key regional cities. We anticipate negative impacts from the possible albeit marginal widening of cap rates in most markets in coming years, though mitigated by positive income growth trends, with future returns likely driven mostly by income yields. Looking ahead, core Australian cities and regional cities in Japan are projected to yield relatively good returns particularly for office assets. In terms of sector performance, core unlevered aggregate total returns are forecasted to range between 5.5% - 7.6%[46] annually over the next five years with the industrial sector likely to yield higher returns compared to office, retail and residential.

[44] IMF World Economic Outlook, April 2019.
[45] Source: DWS Calculations, June 2019, from Colliers, Miki Shoji, JREI, BAC, CBRE, Mateplus, Cushman & Wakefield, Korea Appraisal Board.
[46] Source: DWS Forecasts, June 2019.

EXHIBIT 14: VACANCY RATES IN SELECT ASIA PACIFIC MARKETS



F=forecast. There is no guarantee the forecasts shown will materialize.
LT Average refers to period of past 20 years or shorter where data is available
Source: DWS, Miki Shoji, Mori Building, Colliers, Jones Lang LaSalle Research, Mateplus. As of June 2019.
This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is not indicative of future returns. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. Investments come with risk. The value of an investment can fall as well as rise and your capital may be at risk. You might not get back the amount originally invested at any point in time.

Office: Office markets in core cities across Asia Pacific continued to perform relatively well. Over the 12-month period to the first quarter of 2019, markets which registered the strongest growth include Singapore, Sydney, Hong Kong and Tokyo with effective rental growth ranging 7-13% per annum, driven by a broad-based recovery in tenant demand led by business services. Meanwhile, office rents in Singapore are currently in the midst of a cylical recovery underpinned by recovering leasing sentiment and lower supply pipeline. Similarly in Sydney, rents have been on a strong upswing driven by strong demand from business services and limited supply due to significant stock withdrawals. Rents in Hong Kong Central continued to perform well, driven by occupier demand from mainland Chinese financial services firms, and in Tokyo rental growth was supported by extremely tight vacancy levels. Other Australian cities have shown some early signs of stabilization with Brisbane and Adelaide experiencing marginal rental growth amidst a recovery in tenant demand. On the other hand, rents in markets such as Seoul (CBD) and Perth remain flat due to subdued demand and significant supply pressures.

Over the five year forecast period till 2023, vacancy rates in key office markets in Japan, Australia and Hong Kong are expected to increase only marginally from the current tight levels. On the other hand, while short-term vacancy pressures currently persist in the Australian regional cities of Brisbane, Adelaide and Perth, occupancy levels are forecast to improve gradually on the back of a recovery in occupier demand. Combining our rental growth and vacancy projections, we expect positive occupier trends to underpin moderate to strong rental growth in Australia, China, Singapore, and the regional cities in Japan.

The APAC office sector is projected to yield annual total returns of 3-8% over the next five years through to 2023, on the back of healthy demand and moderate supply. While we continue to expect good returns from the core Australian cities of Sydney and Melbourne, regional cities in Japan such as Osaka, Fukuoka and Nagoya look increasingly attractive providing decent income and capital returns, and in turn some of the highest excess returns over the local risk free rate as well as levered returns with local financing. Office assets in Seoul are projected to yield moderate returns underpinned by decent income yields. On the other hand, the forecast five-year performance in Hong Kong is projected to be relatively weak due to weaker rental growth and potential rise in future cap rates.

Retail: The rise in e-commerce remains a major driver in redefining the retail landscape in Asia Pacific. Behind the rising popularilty of e-commerce in Asia Pacific include structural drivers such as high levels of smartphone penetration globally, increasing adoption of digital wallets and improved online shopping experiences such as increased sophistication of purchasing processes and reduced door-to-door delivery times.

Based on data from eMarketer[47], the e-commerce market in Asia Pacific is estimated to have grown strongly by 30% in 2018, far outpacing the 7.1% growth in total retail sales in the region. These trends were most notably observed in China, the largest e-commerce market in the world, which currently accounts for 85% of the online retail sales in Asia Pacific. The impact from online retail is expected to be felt more keenly in the discretionary retail segments such as apparel and electronics, compared to the non-discretionary segments such as staple food and daily necessities.

The broader retail environment had also been challenging for retailers across the region. A deceleration in retail sales growth has been observed in Australia due to modest wage growth, slower housing sales and consumption, as well as in China and Singapore, while Japan have performed better due to strong growth in high tourist arrivals and expenditure.

Over the five-year forecast horizon, we expect to see a moderate rental growth profile for prime retail assets in the region led by China and Australia on the back of recovering consumption, although growth should be modest in sub regional centers (SRC) in Australia, where demand could be adversely affected by e-commerce and slower wage growth. In Seoul and Tokyo, retail rental growth is likely to be modest below 2% per annum, broadly in line with inflation expectations. Near-term rental growth is projected to be minimal in Hong Kong, Singapore and Kuala Lumpur where retailers have to grapple with high occupancy costs and diminished tourist spending.

Looking ahead, we expect a more modest return profile for retail assets in the range of 5-6%, with returns led by the Tier 1 Chinese cities, Seoul as well as Tokyo. More evidence of yield decompression could emerge particularly for the lower quality assets. Investors need to be mindful of the challenges facing the sector, particularly in markets such as China where high technology adoption rate shortens the life cycles on retail assets which requires heavy capital expenditures and intensive asset management.

Industrial: Prime logistics space across the region continues to see healthy take-up driven by e-commerce and third party logistics providers, resulting in positive rental growth trends across the region. The availability of prime development land and quality modern warehousing facilities is critical for logistics markets undergoing modernization changes coupled with rising domestic consumption, particularly for locations such as Seoul and tier-one cities in China. The rise of e-commerce trends is also gradually taking place in Southeast Asia, driven by the region's rapidly rising middle class population and consumption trends.

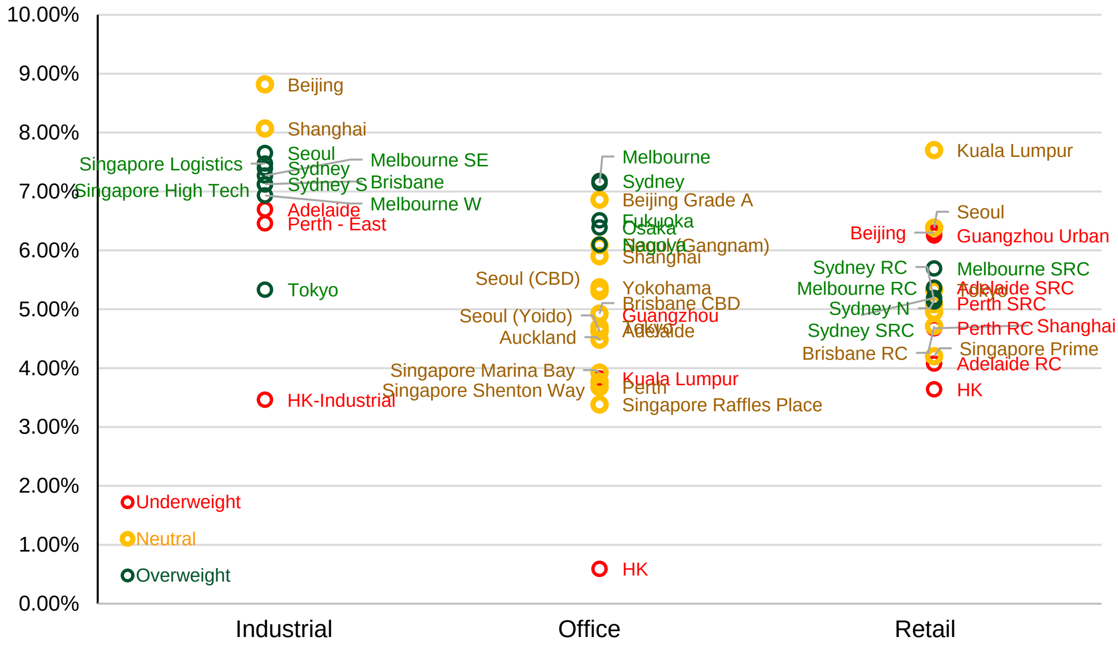
In the industrial sector, e-commerce and third party logistics (3PL) companies are expected to remain major leasing demand drivers in the modern logistic space across the region, underpinned by rising e-commerce trends as described in the retail section. Rental growth is expected to be moderate in the region and broadly in line with inflation trends as tenants, 3PL companies, retailers and consigners remain mindful of logistics costs, particularly in some countries such as Japan and South Korea with significant incoming supply pipeline. However weak rental growth trends are projected in Perth and Adelaide where industrial conditions remain tough due to weaker leasing demand.

Owing to higher yields, increased transparency and strong underlying occupier demand, the industrial sector has provided consistently higher returns than the office and retail sectors, and may remain attractive in the next five years (see Exhibit 5 on page 11). Five-year return forecasts for key cities in China, Singapore and Seoul appear favourable at high levels in excess of 7%, with Australian cities slightly behind, though investment opportunities could be limited by the scarce availability of high

[47] eMarketer – Asia-Pacific Retail and Ecommerce Sales, January 2018.

quality completed assets in most of these markets. Investors seeking access through forward funding commitments – often the realistic approach to gain exposure to quality assets in certain markets such as China, and to a lessor extent, South Korea – need to consider the level of development-related risks on top of limited transparency in these markets. While total returns in Tokyo look to be one of the lowest in the comparison group, excess returns could turn out to be the highest on the back of expected low bond yields.

EXHIBIT 15: ASIA PACIFIC DISPERSION OF CITY-LEVEL RETURNS BY SECTOR (5-YEAR TOTAL RETURN FORECAST NET OF CAPITAL COSTS, 2019-2023)



Sources: DWS. As of June 2019.

Residential: Though more investment spotlights are shed on residential properties as an alternate investment sector across the Asia Pacific region, the institutional residential sector is not yet well-established with major local developers predominantly focusing on for-sale condominiums. The only exception is Japan which possesses a mature, sizable, institutionalized residential market with transaction volumes amounting to around US$5 billion annually, approximately 70% of total residential volume in the region. Transactional liquidity is underpinned by several listed residential J-REITs. As of June 2019, the residential sector accounted for 14.8% of the aggregate asset value of all listed J-REITs, compared to the retail (18.1%) and industrial (15.3%) sectors.

The condominium unit price in Tokyo remains close to the highest level in two decades and this has helped sustain strong tenant demand in rental houses. The average for-sale condominium price per unit in greater Tokyo is around JPY60 million, or US$500,000, and the majority of potential first time buyers with affordability issues have little choice but to stick to rent houses. As such leasing demand is extremely strong in central locations in Tokyo with good access to public transportation. The vacancy rate in the fourth quarter of 2018 was 3.7% in Tokyo, and 3.2% in Osaka in the same period. Prime rental growth in the Central 3 wards in Tokyo was 3.1% per annum over the last three years; rental growth for average assets in Tokyo was more modest at 1.2%, while being almost flat in other regional cities in Japan.

Given the trend of the rising prices of for-sale condominiums as well as growing popularity of flexible work-life concepts among millennials, demand for quality rent houses should remain strong in major cities in Japan. On the other hand, soaring construction costs and land prices nationwide in Japan curb the profitability of new residential developments and should mitigate oversupply risks, especially in the areas near city centers. As such, average rents may see healthy growth of around 1.0% per annum in the next five years, slightly above inflation expectations.

Over the long run, the performance of the residential sector in Japan has been less volatile than other commercial sectors, while only Central Tokyo has experienced strong income growth to date. Residential total returns in Japan averaged 10% in the last five years. Looking ahead, leasing demand for residential assets in Tokyo looks supported by elevated condominium prices, while room for further cap rate compression seems to be limited. Total returns are forecast to be slightly below 6% per annum in the next five years, predominantly driven by income returns.

6 / Global Portfolio Allocation Positioning

This section provides a generalized framework for international investing relative to an investors' local returns and the purchasing power of their home currency. This provides a disciplined approach to identify regions, markets and property sectors that may complement domestic portfolios and can either improve performance, reduce risk, or provide diversification.

The following table is generated from our previously published regional forecasts and hedging costs based on three-year currency swap spreads. There is no guarantee the forecasts will materialize. This analysis takes into account our expected returns, correlations, and potential currency hedging costs, but does not incorporate taxes.

We consider possible investment opportunities across specific countries as a means to help develop a global approach, which may also be able to minimize hedging costs and currency drag by establishing a portfolio which is also diversified by currencies. Those that adopt a longer investment horizon can expect to minimize currency fluctuations, thereby limiting the need for complex hedging overlays.

EXHIBIT 16: DOMESTIC VS. HEDGED EXPECTED REAL ESTATE TOTAL RETURNS (2019-2021)

			Hedged Country Level Returns											
Investor Domicile	3-Year Rate Swap	Home Country Return	Australia	Japan	Korea	China	Germany	Swiss	United Kingdom	France	Netherlands	Spain	Italy	United States
Australia AUD	**0.7%**	**6.8%**	6.8%	8.8%	7.9%	3.3%	7.1%	4.5%	2.4%	5.3%	5.9%	6.6%	3.7%	4.8%
Japan JPY	**-0.2%**	**7.9%**	6.0%	7.9%	7.0%	2.4%	6.2%	3.6%	1.6%	4.5%	5.1%	5.8%	2.9%	3.9%
Korea KRW	**0.1%**	**7.3%**	6.2%	8.2%	7.3%	2.7%	6.5%	3.9%	1.8%	4.7%	5.3%	6.0%	3.1%	4.2%
China CNY	**2.8%**	**5.3%**	8.9%	10.8%	9.9%	5.3%	9.2%	6.5%	4.5%	7.4%	8.0%	8.7%	5.8%	6.8%
Germany EUR	**-0.5%**	**5.8%**	5.6%	7.5%	6.6%	2.1%	5.8%	3.2%	1.2%	4.1%	4.7%	5.4%	2.5%	3.6%
Swiss CHF	**-0.9%**	**2.8%**	5.2%	7.1%	6.2%	1.7%	5.4%	2.8%	0.8%	3.7%	4.3%	5.0%	2.1%	3.2%
UK GBP	**0.7%**	**2.4%**	6.8%	8.7%	7.8%	3.3%	7.0%	4.4%	2.4%	5.3%	5.9%	6.6%	3.7%	4.7%
US USD	**1.5%**	**5.5%**	7.6%	9.5%	8.6%	4.0%	7.8%	5.2%	3.2%	6.1%	6.7%	7.4%	4.5%	5.5%
Local Currency Return			**6.8%**	**7.9%**	**7.3%**	**5.3%**	**5.8%**	**2.8%**	**2.4%**	**4.7%**	**5.3%**	**6.0%**	**3.1%**	**5.5%**

Source: Bloomberg and DWS. As of August 2019.

Source: DWS, Bloomberg. As of July 2019. Note: Total returns for each market based on market-cap weighted sector returns. Green shading indicates hedged returns that are more than 100 bps above the home country return, yellow shading indicates hedged returns that are within a 100 bps range of the home country return and red shading indicates hedged returns are that more than 100 bps below the home country return. We have assumed that for each investor, the allocation to their home country is accounted for in their domestic real estate portfolio. Therefore the weighted-average return to the home cluster excludes the home country return. Note: Total returns for each market based on market-cap weighted sector returns. Green shading indicates hedged returns that are more than 100 bps above the home country return, yellow shading indicates hedged returns that are within a 100 bps range of the home country return and red shading indicates hedged returns are that more than 100 bps below the home country return. We have assumed that for each investor, the allocation to their home country is accounted for in their domestic real estate portfolio. Therefore the weighted-average return to the home cluster excludes the home country return.

EXHIBIT 17: CURRENCY HEDGING COST OF CARRY

		Currency of Investment Destination							
Investor Domicile	3-Year Interest Rate Swap (Aug-2019)	AUD	JPY	KRW	CNY	EUR	CHF	GBP	USD
Australia	0.72%		0.9%	0.6%	-2.1%	1.3%	1.6%	0.1%	-0.7%
Japan	-0.16%	-0.9%		-0.3%	-2.9%	0.4%	0.8%	-0.8%	-1.6%
Korea	0.12%	-0.6%	0.3%		-2.7%	0.6%	1.0%	-0.6%	-1.3%
China	2.78%	2.1%	2.9%	2.7%		3.3%	3.7%	2.1%	1.3%
Germany	-0.53%	-1.3%	-0.4%	-0.6%	-3.3%		0.4%	-1.2%	-2.0%
Switzerland	-0.93%	-1.6%	-0.8%	-1.0%	-3.7%	-0.4%		-1.6%	-2.4%
UK	0.67%	-0.1%	0.8%	0.6%	-2.1%	1.2%	1.6%		-0.8%
US	1.46%	0.7%	1.6%	1.3%	-1.3%	2.0%	2.4%	0.8%	

Sources: Bloomberg, DWS. As of August 2019.

The most notable change since January 2019 is that interest rates in the U.S. have declined, with the three-year swap rate down ~120 bps. The lower swap rate means that hedging costs to invest in the U.S. are now lower, thus making the U.S. a more attractive investment destination. Swap rates in other countries have also declined: by 46 bps in Germany, 53 bps in the U.K. and 112 bps in Australia. Nevertheless, swap rates in the U.S. remain higher than many other regions around the world.

Generally, investors based in the U.S. and Asia Pacific benefit from a hedging gain when investing in European countries and Japan. Conversely, investors based in Europe and Japan would experience a hedging loss when investing in the U.S. and most Asia Pacific countries.

From a diversification standpoint, hedged returns are relatively low for most countries. Correlations for unhedged returns are even lower, but investors would be exposed to currency volatility.Ideally, investors would want to deploy capital into countries with low correlations of returns to their home country. The following correlation table should aid in an investor's decision making process.

EXHIBIT 18: COUNTRY RETURN CORRELATIONS

		Investment Destination											
	1999 - 2018[1]	Australia	Japan	South Korea	China	Germany	Swiss	U.K.	France	Neth erland	Spain	Italy	U.S
	Australia	1.00											
	Japan	0.69	1.00										
	South Korea	0.70	0.54	1.00									
	China	0.24	0.30	0.62	1.00								
	Germany	0.18	0.17	-0.11	-0.34	1.00							
Investor	Swiss	0.42	0.10	0.57	0.07	0.02	1.00						
Domicile	United Kingdom	0.44	0.39	0.50	0.21	-0.34	0.57	1.00					
	France	0.77	0.32	0.63	0.02	0.31	0.69	0.54	1.00				
	Netherland	0.72	0.57	0.42	0.00	0.36	0.20	0.46	0.65	1.00			
	Spain	0.75	0.57	0.45	-0.11	0.21	0.49	0.65	0.80	0.76	1.00		
	Italy	0.62	0.39	0.44	-0.19	0.53	0.53	0.26	0.71	0.58	0.69	1.00	
	United States	0.86	0.67	0.80	0.31	0.13	0.37	0.53	0.67	0.59	0.71	0.44	1.00

Source: DWS. As of August 2019.

Using forecasted hedged returns and country correlations, we have come up with a shortlist of investment destinations for investors domiciled in the following countries.

EXHIBIT 19: FAVORED INVESTMENT DESTINATIONS BY INVESTOR DOMICILE

Investor Domicile	Recommended Investment Destinations	Currency Hedging Gain/Loss
Australia	*Countries:* Japan, South Korea, Germany, the Netherlands *Example target markets*: Industrial in Tokyo, Singapore, Amsterdam. Office in Amsterdam, regional Japanese cities such as Osaka and Nagoya, and Singapore.	Currency hedging gain of 90-130 bps
Japan	*Countries*: South Korea, European markets *Example target markets*: Industrial in Dublin and France. Office in Paris and Germany.	Currency hedging gain into Europe. Currency hedging loss elsewhere.
South Korea	*Countries*: Japan, Germany. *Example target markets*: Industrial in Singapore, Amsterdam and Germany. Office in Singapore, France, and regional Japanese cities.	Currency hedging gain of 30-60 bps
Germany	*Countries*: Japan, South Korea, other European countries *Example target markets*: Industrial in Warsaw and US markets such as Lehigh Valley, Atlanta, San Diego, San Francisco, San Jose, Miami, and New York. Office in Japan, Prague and Warsaw.	Currency hedging loss of 40-60 bps in Japan and South Korea. Currency hedging loss of 200 bps in the U.S.
Switzerland	*Countries*: Australia, Japan, South Korea, Germany, the Netherlands, Spain and the U.S. *Example target markets*: Industrial in Warsaw, Tokyo, Singapore, and Amsterdam. Office in Warsaw, Amsterdam, Rotterdam, Singapore, and Frankfurt.	Currency hedging loss of 40-240 bps
United States	*Countries*: Australia, Japan, South Korea, Germany, the Netherlands, Spain, the U.K. *Example target markets*: Industrial in Japan, Singapore, the U.K., and Helsinki. Office in regional Japanese cities (Nagoya, Fukuoka), regional U.K. cities (Glasgow, Birmingham), Paris, and Helsinki.	Currency hedging gain of 70-200 bps

Source: DWS

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- Currency / exchange rate risks where the investments are denominated in a currency other than the investor's home currency.

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