Marketing Material

September 2018 / Research Report

GLOBAL REAL ESTATE STRATEGIC OUTLOOK

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Table of Contents

1 / Executive Summary 3
2 / Global Economic and Political Highlights 5
3 / Macroeconomic Implications to Real Estate 11
4 / Year in Review and Mid-Year 2018 Total Return Outlook 14
5 / Outlook for Real Estate by Region 18
5.1 U.S. Real Estate Outlook 18
5.2 European Real Estate Outlook 21
5.3 Asia Pacific Real Estate Outlook 23
6 / Global Portfolio Allocation Positioning 26
6.1 Australian Investor Allocation 27
6.2 Japanese Investor Allocation 28
6.3 South Korean Investor Allocation 28
6.4 German Investor Allocation 28
6.5 Swiss Investor Allocation 29
6.6 U.S. Investor Allocation 29
7 / Appendix 30
Important Information 33
Research & Strategy—Alternatives 37

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1 / Executive Summary

Our investment themes from earlier in the year remain intact. Global growth is projected to reach 3.9% in 2018 and 2019[1]. With yield curves positively sloped, the risk of recession in any particular country appears low over the next twelve months. Against this backdrop, real estate continues to perform well as evidenced by the Global Real Estate Fund Index (GREFI). From the most recent data available, global real estate generated a total return of 9.5% over the last year. While this fell short of the equities market in certain countries, particularly the U.S., it handily outpaced the bond market which has posted a total return of -1.2% as reflected in the Barclays Global Aggregate Bond index.

An additional theme which remains intact is the divergence in central bank policy. As this divergence unfolded over the last six months, the US Dollar has increased roughly 5% on a trade-weighted basis. Thus, U.S. property is slightly more expensive for international investors than it was six months ago (despite initial yields remaining stable in the U.S. during this time). Conversely, international markets may be more appealing for U.S. investors. While the Federal Reserve remains on a deliberate path to increase interest rates, Central Banks elsewhere remain accommodative. More importantly, as many Central Banks are not likely to increase rates abruptly, inflation-adjusted or “real” interest rates are expected to remain below average over the next five years. When this has occurred in the past, real estate typically generated rates of return that were at least on pace with its longer-term average after adjusting for inflation.

We remain constructive on real estate for several reasons. First, initial yields relative to sovereign bond yields remain above their long-term average globally and provide a reasonable risk premium compared to bonds. While variations occur across markets and sectors, the global average remains attractive. Second, despite the variation in growth, unemployment rates remain low while consumer and business confidence is high which should support additional tenant demand for real estate. Further, construction activity remains fairly disciplined in the aggregate.

Our relative views for the outlook for real estate in each region also remains intact with Europe and Asia-Pacific slightly outperforming the U.S. However, the divergence in returns across markets and sectors within a region seems higher as capital has flowed into prime office assets in certain regions or “gateway” markets in other regions which has driven our expected returns lower in those areas. In contrast, there are a number of overlooked markets and sectors which should provide investors the chance to outperform the relevant indices.

In the U.S. our outlook for total returns over the next three years is 5.7%. The fundamentals couldn’t be stronger as the national vacancy rate is near its lowest level in 17 years and below its 20-year average while net operating income is growing by 4.6% annually[2]. We continue to recommend a strong overweight to industrial and an underweight to offices while emphasizing garden-style apartments in select cities over high-rise apartments as well as cyclically-defensive neighborhood and community centers over malls.

Turning to Asia Pacific, we remain constructive in our views and expect to see total returns in the range of 5.5%-7.3%. Real estate performance across much of the region remains healthy on the back of strong capital markets and stable occupier fundamentals. Once again, the core office and logistics markets in the eastern seabord of Australia, including Sydney and Melbourne, are expected to outperform in Asia Pacific, while Japan is also expected to post high single digit levered returns due to the low cost of borrowing and improving economic prospects. Conversely, rents in office markets in Seoul and Kuala Lumpur are weighed down by less demand and short-term supply pressures. Elsewhere, prime logistics space across the region continues to see healthy take-up drive by e-commerce.

[1] World Economic Outlook as published by the IMF, July 2018
[2] NCREIF, as of June 2018.

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Finally, economic prospects in Europe remain stable despite certain political risks in the region. Over the next three years, we expect prime total returns range from 5.2%-8.0%. While supply has increased, declining unemployment in most markets combined with strong occupier demand, positive rent growth, higher releasing rates and declining vacancy rates should lead to positive momentum in total returns. We maintain our overweight view on logistics given low vacancy rates and a structural shift in demand. While the overall environment remains challenging for stationary retail, we generally favor urban shopping centers over high-street retail which has been fully-priced in certain cities. Likewise, a more selective view on offices is recommended with an emphasis on certain Benelux and Central and Eastern European markets over prime markets such as Munich or Paris CBD where property appears fully priced with initial yields of 3%.

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2 / Global Economic and Political Highlights

The global economy has grown broader and stronger with the IMF projecting that advanced economies will expand above trend for the next two years and growth in emerging markets will be higher before leveling off. The IMF forecasts global growth of 3.9% in 2018 and 2019, slightly higher than 2017 when it grew by 3.8%. Global growth is supported by favorable market sentiment, accommodative financial conditions especially in Europe and Japan, and expansionary U.S. fiscal policies stemming from the tax cuts. Somewhat stable energy commodity prices have supported growth in certain emerging markets. However, there are risks on the horizon amidst the broad-based growth momentum, namely the trade conflict which could result in unintended higher inflation, recession risks stemming from flatter yield curves and higher interest rates which could push real estate yields higher. In addition, the outcome of Brexit negotiations remains uncertain. Despite these risks, unemployment levels remain low while consumer confidence is high and most production indices remain in expansionary territory. Combined, these continue to provide support for real estate tenant demand.

U.S. economic growth during 2018 and 2019 is expected to gain a boost from tax reform which has benefitted corporate earnings, despite the equity markets being more volatile. The unemployment rate is near record lows at 3.9% as of July 2018, matching levels last seen in the late 1990s. However, growth will likely slow as the effects from the tax cuts wear off and as we are closer to full employment. The Federal Reserve has been more hawkish as it has reached its dual mandate of full employment and inflation target of 2.0%. As the Fed increases interest rates, we expect cap rates in the U.S. to rise gradually, to the tune of 30-50 basis points, over the next five years. Note that we have not seen any increase in cap rates despite the 10-year Treasury having risen close to 50 bps since the start of the year through July 2nd, 2018.

The Eurozone short-term outlook has somewhat dipped recently, and the UK has slowed from the Brexit effects. Employment growth in Europe is positive although will likely slow due to less excess capacity. As global monetary policy tightens, we expect inflation and bond yields to be pushed up as well.

Asia Pacific is experiencing a mild economic recovery with regional GDP growth averaging 4.2% per year over the next five years. China's economy is likely to stabilize but at lower sustainable levels and Japan's is expected to grow by just under 1%. Employment trends are expected to be positive with the unemployment rate projected to be stable or decline marginally in the region although job growth will likely moderate going forward. Inflationary pressures are also expected to pick up marginally across major Asia Pacific economies other than Japan.

Long-term interest rates have risen significantly for some economies, and remained relatively unchanged for others. The 10-year Treasury yield has moved up ~50 bps since the beginning of the year through August 16, 2018 to a current yield of 2.89%. Government bond yields of countries with similar monetary policy to the U.S. have also risen, including Singapore (+49 bps) and South Korea (+24 bps). In contrast, interest rates are still quite low and relatively unchanged in Europe. Gilt yields have only risen 6 bps since the start of the year. Bund yields have actually declined 14 bps from 0.45% at the start of the year to 0.31% as of mid-August 2018. As the Bank of Japan is still keeping an easy monetary policy, 10-year government bond yields have barely moved, from 0.05% at the start of the year to 0.10% as of August 2018.

Trade Conflict

Trade has boosted growth in the global economy, driven by an investment recovery in advanced economies, strong growth in emerging Asia, a notable upswing in emerging Europe, and recovery in some commodity export economies. China has been driving growth in regional exports across Asia, supporting growth in the Asia Pacific region. However, the recent trade conflict between the U.S. and China may dent world economic growth; the IMF is already projecting a 0.5% impact to world GDP through 2020. On July 6, 2018, tariffs on $34 billion of goods imported from China became effective. On July 10, the U.S. announced another $200 billion of planned tariffs on Chinese imports, bringing the total amount of goods subject to

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new tariffs to $253 billion. China has retaliated with its own set of tariffs and may plan to hit back in other ways. However, China does not import nearly as many products from the U.S. as the U.S. buys from China. Below are several key items relating to global trade:

- Despite the escalating words, global trade is actually up this year. The Baltic Dry Freight index is up significantly over the last year. A year ago the index was slightly higher than 800 and today stands near 1,700.
- A few key bilateral trade agreements have emerged: US and South Korea; Japan and Europe and more recently, U.S. and European trade talks appear more cooperative. As of the writing, it is reported that China and the U.S. may re-engage in discussions.
- Counteracting the trade tariffs, China's currency (RMB) has depreciated by close to 9% over the last several months and to some degree, negating the impact that U.S. tariffs have on imported goods. While tariffs normally lead to greater inflationary pressures, a strong U.S. dollar mutes the inflationary pressures.
- Conversely, a stronger dollar could impact U.S. exports as U.S. "traded-goods" become more expensive on global markets. Conversely, as real estate is by its nature is a "non-traded" good, it should perform relatively better than traded-good markets. We speculate this may be part of the reason why REITs have outperformed the broader equity markets in the U.S. over the last 6 months despite a flatter yield curve. As of mid-August, the MSCI US REIT index has returned 13.7% versus the S&P 500 which produced a total return of 9.2%.
- Notwithstanding the impact of tariffs on price inflation, a stronger USD can also lead to lower energy prices which could feed into disinflation in the short run.
- As China has imposed tariffs on agricultural products, stockpiles of these products have increased and prices on goods such as corn, meat and soybean have fallen by 6.6%, 12.7% and 15.2% respectively over the last six months.

While these are some of the shorter term effects, in the longer run, we believe tariffs represent a drag on the economy. The challenge is determining whether it turns into an acute shock leading to a recession or a longer-term sub-potential growth outlook.

From a real estate perspective, tariffs on steel have led to an increase in construction costs in the U.S. which were already exacerbated by a tight construction labor market. This may serve to reduce the amount of new construction and stabilize vacancy rates notwithstanding the negative side effects which sustained trade conflicts might have on tenant demand. In the U.S., while a trade conflict induced recession would obviously hurt absorption across all property types, we believe the industrial sector would continue to produce better relative performance because; 1) consumption (retail/industrial) is more resilient than employment (office), and; 2) it is still benefitting from structural e-commerce tailwinds. There are also fears that reduced trade could hurt warehouse demand directly: while we think that might be true in certain port markets such as the LA/Inland Empire, it would be less of an issue in markets exposed to less import/export space demand.

There are a number of cross-currents, however our base case is trade friction that does not result in recession but reduces growth over an extended period. From a global perspective, it's also important to determine which countries could fare better or worse. As the chart below highlights, trade represents slightly more than 20% of world GDP growth. The U.S. relies much less on trade to support its growth compared to major markets around the world, while economies in countries such as Hong Kong and Singapore are more highly leveraged to trade.

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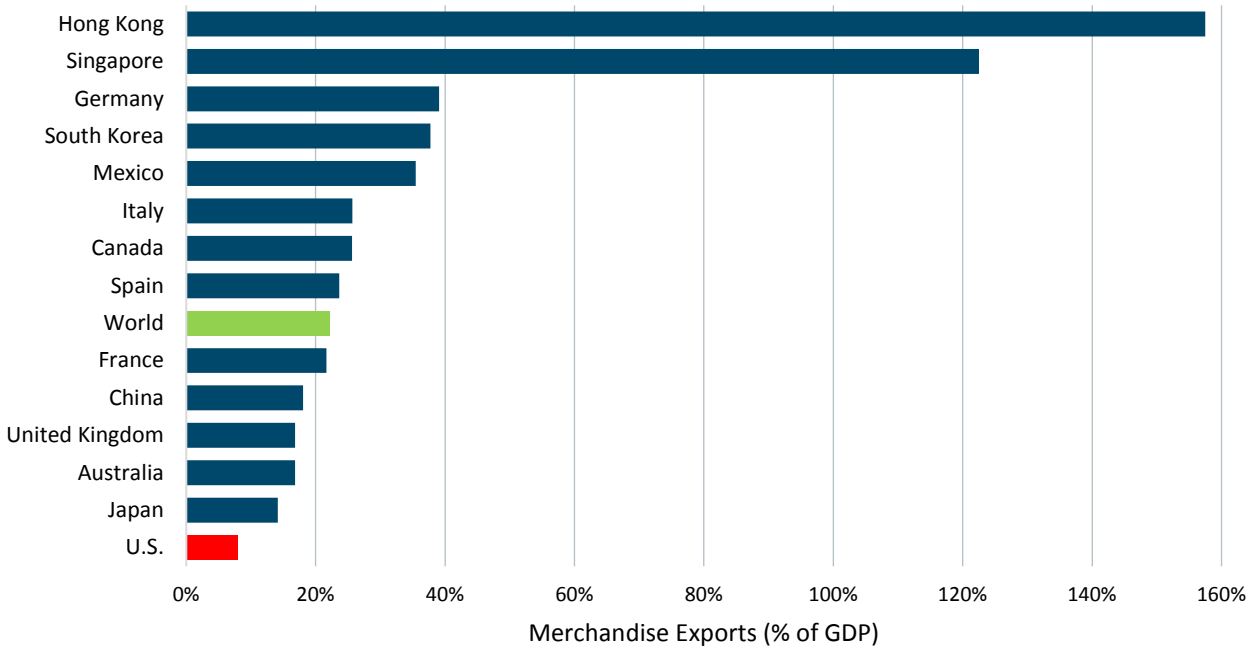
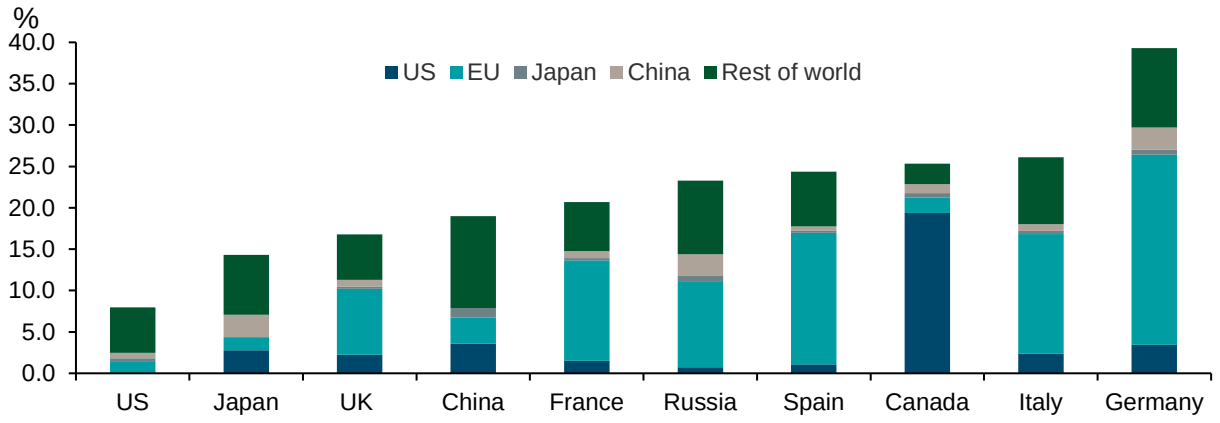
EXHIBIT 1: MERCHANDISE EXPORTS AS % GDP SHOW THE U.S. IS A RELATIVELY CLOSED ECONOMY



Sources: DWS, Oxford Economics. As of YE 2017

Further still, as the chart below highlights, perhaps the country most exposed to trade conflicts with the U.S. is Canada where close to 20% of its GDP is exported to the U.S. In other instances, bilateral trade agreements seem to remain in place between several countries, whether it is the U.S. and Japan and Korea, or European countries with one another. Further still, talks have increased between Asia and Europe and a summit schedule for October on Brexit may now become a summit between Europe and Asia on trade.

EXHIBIT 2: GOODS EXPORTS AS A SHARE OF GDP, BY DESTINATION



Source: DWS, IMF. As of YE 2017.

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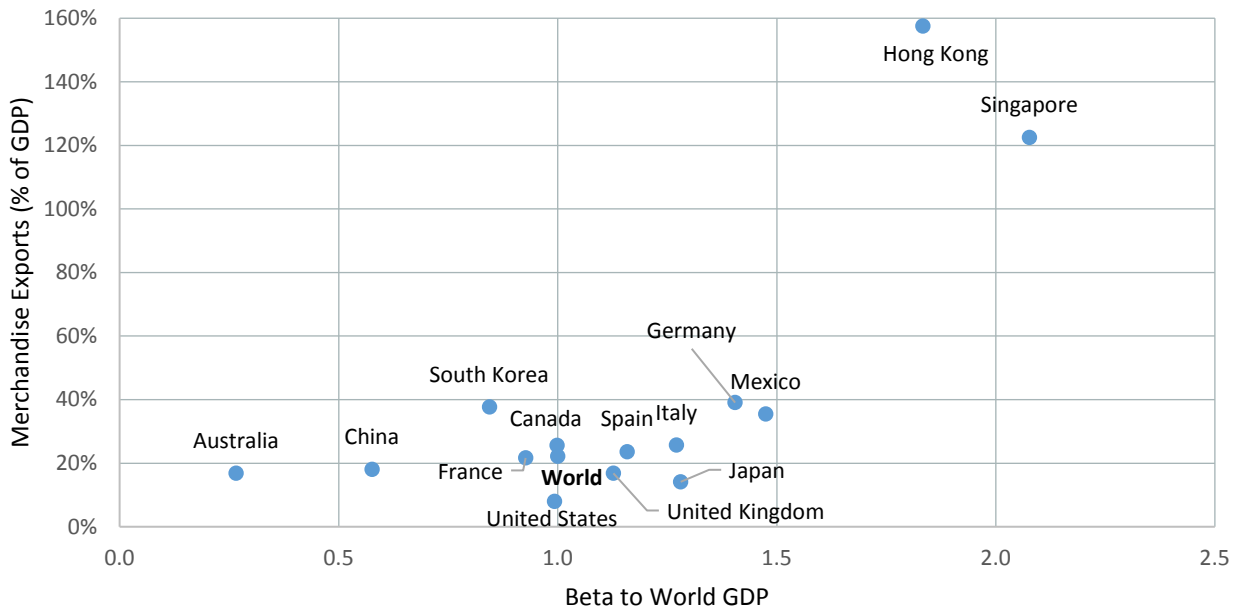
EXHIBIT 3: MERCHANDISE EXPORTS AS % GDP VS. BETA OF GDP TO WORLD



Source: DWS, Oxford Economics. As of YE 2017.

Finally, as shown in the chart above, we show trade as a share of GDP and contrast this with the systematic risk, or "beta" that a given country has with global growth. Not surprisingly, there is a somewhat positive relationship between a country's trade share and its relative risk to global economic growth. If global economic growth were to slow as a result of trade issues, both Hong Kong and Singapore growth could be more acutely impacted. Conversely, the impact on Australia, France, and South Korea could be much more benign and these countries may be viewed as more defensive. In our view, the real estate fundamentals across most sectors in these countries is attractive today and given their relationship to global growth, could warrant inclusion in a global portfolio depending upon an investor's objectives.

Monetary Policy

Over the course of the next year, we expect to see further divergence in central bank policy. If this occurs as expected, it is reasonable to expect the correlation for real estate returns globally continue to decline and thereby enhancing the diversification benefits of investing in real estate globally.

The Federal Reserve has been hiking rates and we expect two to three more hikes to follow in order to achieve its dual mandate objectives of full employment and 2% inflation target. The U.S. unemployment rate was 3.9% in July 2018 and core CPI was 2.4%. The Federal Reserve has on multiple occasions cited a strengthening labour market, better economic outlook and inflation moving up as reasons to be comfortable raising interest rates. The Federal Funds rate sits at 2% today with the next move to 2.25% expected in September. Over the course of the next year, we are anticipating the Federal Funds rate could settle in a range of 2.75% to 3.00%. With the 10-year treasury yield expect to rise to a range of 3.25% to 3.50%, we see limited risk of an inverted yield curve through 2019.

Some Asia Pacific economies will likely follow the Federal Reserve's monetary policy, including Singapore (up 0.50%) and South Korea (up 0.25%). These countries have demonstrated higher policy rates consistent with the Federal Reserve's moves. In contrast, the Bank of Japan is expected to keep monetary policy easy to encourage wage growth and inflation.

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We don't expect much change in policy except for a modest widening of their trading bands to 10 basis points around the 10-year yield which currently stands at 0.10% as of mid-August 2018.

The European Central Bank (ECB) will likely end QE purchases in December 2018 due to solid economic fundamentals. A first rate hike in the form of deposit rate increase is expected in the summer of 2019 with it rising modestly from -0.40% to -0.25%. The United Kingdom is still facing softer economic data and therefore a muted outlook on growth. The Bank of England recently increased its rate to 0.75% as inflation is slightly higher (2.3%) and unemployment slightly better at 3.9%. Our central assumption is a relatively smooth Brexit with no further tightening expected due to Brexit uncertainly. The next rate hike by the Bank of England is not expected until the second half of 2019.

In other places around the globe, the Royal Bank of Australia remains on hold with rates at 1.5%, but has recently signalled a rise in 2019 based on an upbeat assessment of international and domestic demand. Similarly, China remains focused on stability in the presence of trade conflicts. Monetary policy had been correlated with the Fed, but now they are diverging. Credit is expected to support internal growth and concerns over a trade conflict dominate policy and how to maintain that stability.

Monetary Policy - Implications to Currencies and Hedging Costs for Real Estate

As a result of central bank policy, in particular the deliberate moves by the Federal Reserve, combined with the relative growth and inflation conditions across the globe, the U.S. dollar has risen solidly against the Euro (7.6%), Sterling (8.1%), Yen (2.6%), and Australian Dollar (7.4%) over the last six months. If current trends hold on Central Bank policy and inflation, it's reasonable to expect further USD appreciation. If we were to see a reversal in trade conflicts, positive trends on Brexit, more subdued events in Turkey, then these trends could reverse with the USD giving back some ground.

For global real estate investors, the differences in interest rates can impact a global approach in two ways, namely hedging costs and expected cross-border liquidity. When we compare swap costs today with where they were six months ago, the most noticeable changes are for the U.S. where swap spreads increased by 40 bps, consistent with higher interest rates in the U.S. U.S. real estate now appears more expensive to foreign investors than just six months ago on a currency-adjusted basis. In contrast, U.S. investors would now find more countries more appealing due to lower hedging costs and a stronger currency. However, as will be discussed shortly, total returns in the U.S. remain competitive with other countries on a local currency basis.

Swap spreads increased by 10 bps over the past six months for the U.K. and declined 20 bps for Korea and China. On a hedged basis, it is now slightly more dilutive to invest in the U.K. and slightly more accretive to invest in Korea and China. U.K. investors would now find it more attractive to invest in Japan, Europe and Switzerland due to hedging gains. Overall, the markets which could benefit the most from hedged-inflows of capital are Europe and Japan. Conversely, the countries with the highest average hedging costs are China, U.S. and Australia. Notably, U.S. investors enjoy a hedging gain of c. 0.78% into Australia where certain markets and sectors within the country are in a recovery phase of their cycle and hedging provides additional carry.

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EXHIBIT 4: CURRENCY HEDGING COST OF CARRY

		Currency of Investment Destination							
Investor Domicile	**3-Year Interest Rate Swap (July-2018)**	**AUD**	**JPY**	**KRW**	**CNY**	**EUR**	**CHF**	**GBP**	**USD**
Australia	2.17%		2.10%	0.74%	-1.63%	2.16%	2.51%	0.93%	-0.78%
Japan	0.07%	-2.10%		-1.36%	-3.73%	0.06%	0.42%	-1.17%	-2.88%
Korea	1.43%	-0.74%	1.36%		-2.37%	1.42%	1.78%	0.19%	-1.52%
China	3.80%	1.63%	3.73%	2.37%		3.79%	4.15%	2.56%	0.85%
Germany	0.01%	-2.16%	-0.06%	-1.42%	-3.79%		0.36%	-1.23%	-2.94%
Switzerland	-0.35%	-2.51%	-0.42%	-1.78%	-4.15%	-0.36%		-1.58%	-3.30%
UK	1.24%	-0.93%	1.17%	-0.19%	-2.56%	1.23%	1.58%		-1.71%
US	2.95%	0.78%	2.88%	1.52%	-0.85%	2.94%	3.30%	1.71%	

Source: Bloomberg, DWS. As of July 2018.

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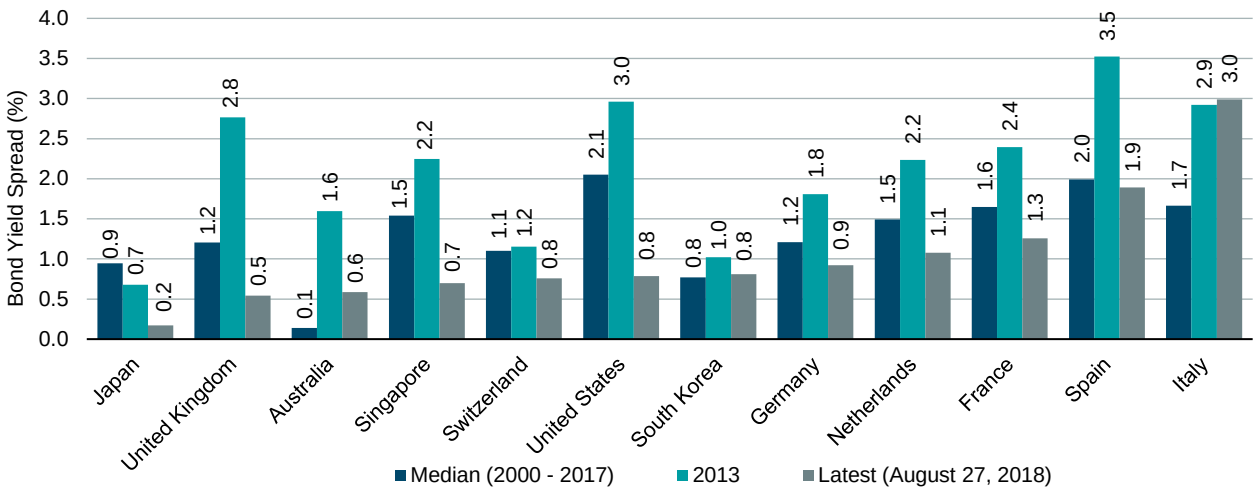
3 / Macroeconomic Implications to Real Estate

We are in an environment of good moderate economic growth coupled with tightening monetary policies. Through our prior research on U.S. interest rates, we concluded that even in periods of rising interest rates, the 10-year Treasury yields stays somewhat anchored and typically does not increase to the same degree as shorter term rates. Today, real estate yield spreads to sovereign bond yields are still fairly wide and therefore can likely absorb some increases in intermediate term bond yields without necessarily impacting capital values adversely. Also, "real" interest rates (inflation adjusted) are likely to remain low or negative, thus still supporting real estate returns.

Recession risks remain low in the countries we cover. As the following chart depicts, the yield curve (difference between 10-year and 3-month sovereign bond yields) remains positive. Historically, an economic recession is typically preceded by a negatively-sloped or inverted yield curve. Today, yield curves for the countries we cover are flatter than in 2013, and in many cases, flatter than the long-term median. However, we do not think that the scenario of flatter yield curves are necessarily a cause for concern in the short term given the environment of moderate economic growth.

EXHIBIT 5: RECESSION RISKS REMAIN LOW IN MAJOR MARKETS



Source: Bloomberg. As of August 27, 2018.
Note: Sorted by latest bond yield spread

As Exhibit 6 below shows, lower real yields (10-year sovereign bond yields minus inflation) have typically led to stable-to-higher real estate returns and vice versa. In a low real yield environment, real estate returns are supported in part as real estate becomes more appealing of an asset class compared to fixed income investments. 10-year real yields have remained fairly unchanged compared to six months ago despite the increase in short term rates in certain countries. This indicates that while inflation has crept higher against the backdrop of higher global growth, 10-year sovereign bond yields have remained somewhat anchored.

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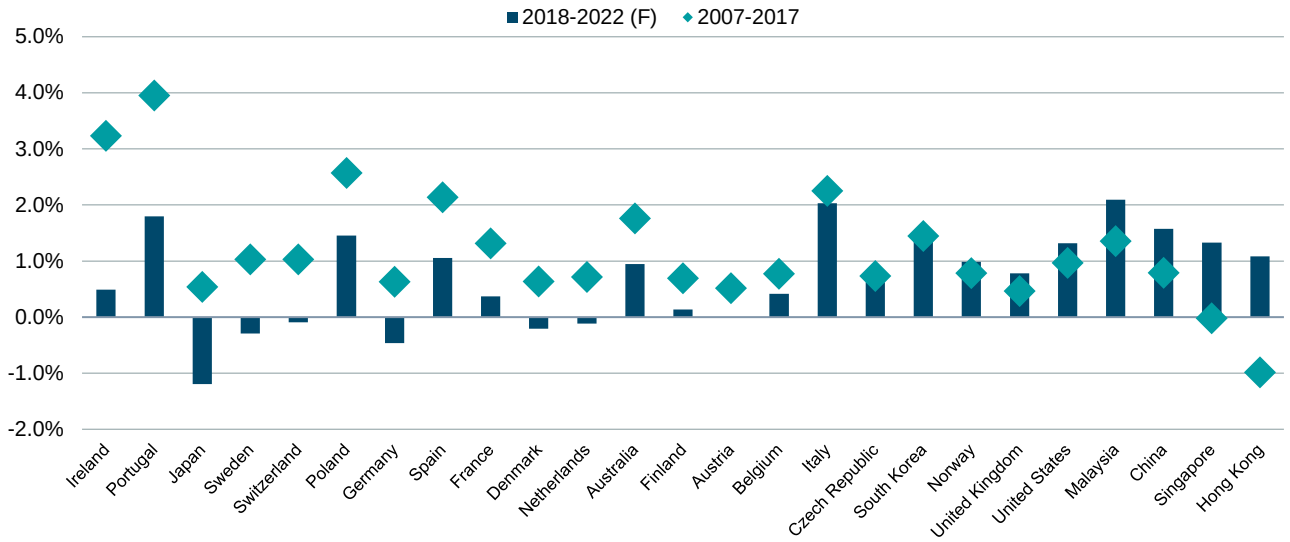
EXHIBIT 6: FORECASTED REAL SOVEREIGN BOND YIELDS BY COUNTRY REMAIN BELOW HISTORICAL AVERAGES (10-YEAR YIELD – INFLATION)



Source: DWS, Oxford Economics. As of June 2018.
Sorted by the difference between forecasted real sovereign bond yields and historical averages

As seen in the chart, while real yields for some countries are expected to move higher over the next five years, they are still expected to remain below or at the 10-year average for most countries, thus supporting real estate returns. A few economies stand out where real interest rates are expected to trend higher in contrast to the last ten years, namely China (+0.8%), Malaysia (+0.7%), Singapore (+1.3%), U.K. (+0.3%) and U.S. (+0.3%). With the possible exception of the U.K., the expected rise in real rates is a function of stable economic growth which should support real estate fundamentals. In contrast, a number of countries are expected to see lower real interest rates when compared to the last ten years thereby providing some additional support for capital values, notwithstanding supply and demand conditions in the property markets.

The countries where we expect lower real interest rates over the next five years in contrast to the last ten years are Japan (-1.2%), Australia (-0.9%), France (-0.9%) and Germany (-1.1%). In the case of Australia and France, we believe several property sectors within several cities in these countries are in the recovery and expansion phase which underpins their attractiveness on a relative basis globally.

Finally, when we bring together our views on economic growth and real interest rates over the next five years as compared to the last ten years, we expect to see more normal rates of return. Certainly over the last ten years, quantitative easing by central banks produced exceptionally low real interest rates to support an economic recovery. In turn, many real estate markets have generated total returns which have been well above-average. Looking ahead, as exhibit 7 below depicts, we expect to see more normal rates of return comparable to their longer-term average when adjusted for risk and inflation.

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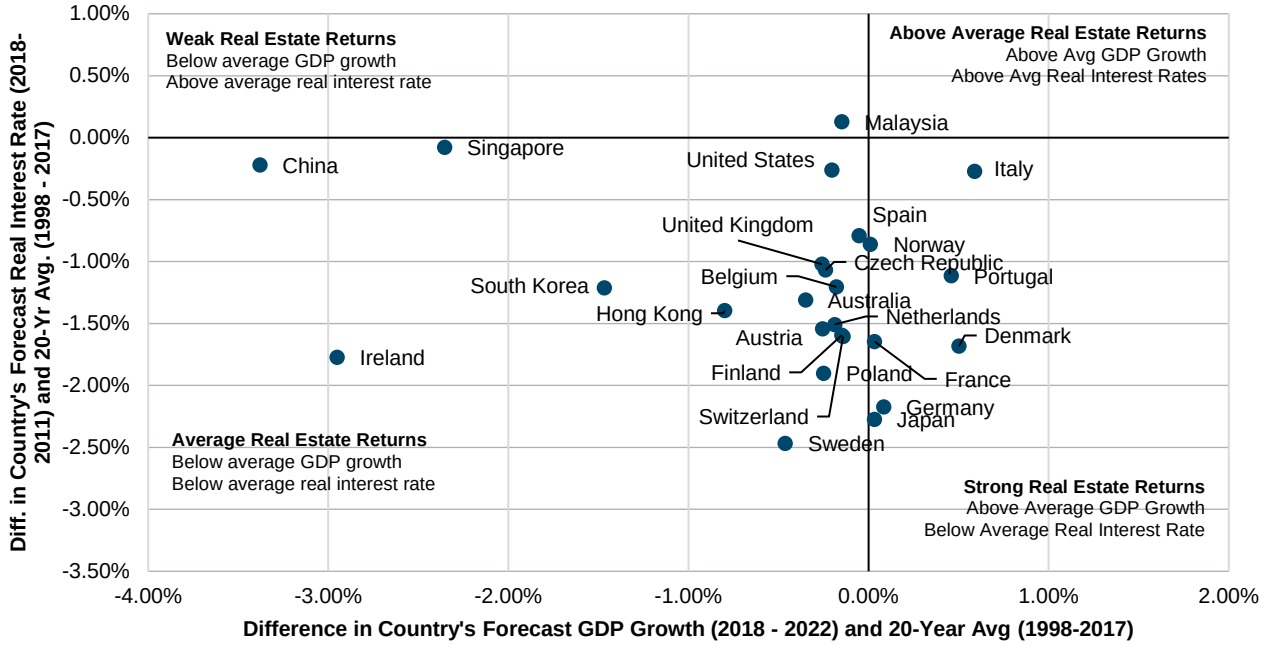
EXHIBIT 7: ECONOMIC QUADRANT BASED ON 5-YR FORECAST GDP GROWTH AND REAL INTEREST RATES (10-YEAR SOVEREIGN BOND YIELDS LESS INFLATION)



Source: DWS, Oxford Economics. As of June 2018.

In the chart above, we compare the long-term average for GDP growth and "real" interest rates to the forecasted values from Oxford Economics. The ideal scenario for real estate valuations would consist of consistent economic growth coinciding with low real rates. From this perspective, conditions over the next five years can be very positive for real estate in Spain, France, Germany and Japan as these countries are expected to see consistent economic growth coupled with stable economic growth coupled with below average and even declining inflation-adjusted interest rates. Rising real rates are generally unfavourable for real estate valuations if not mitigated or offset by stable economic growth. In the case in Hong Kong, Malaysia, Singapore and South Korea, monetary policy will likely follow the United States. As noted earlier though, given how these countries are leveraged to global trade, higher global growth may offset the increase in real rates, leading to average total returns for property in these countries.

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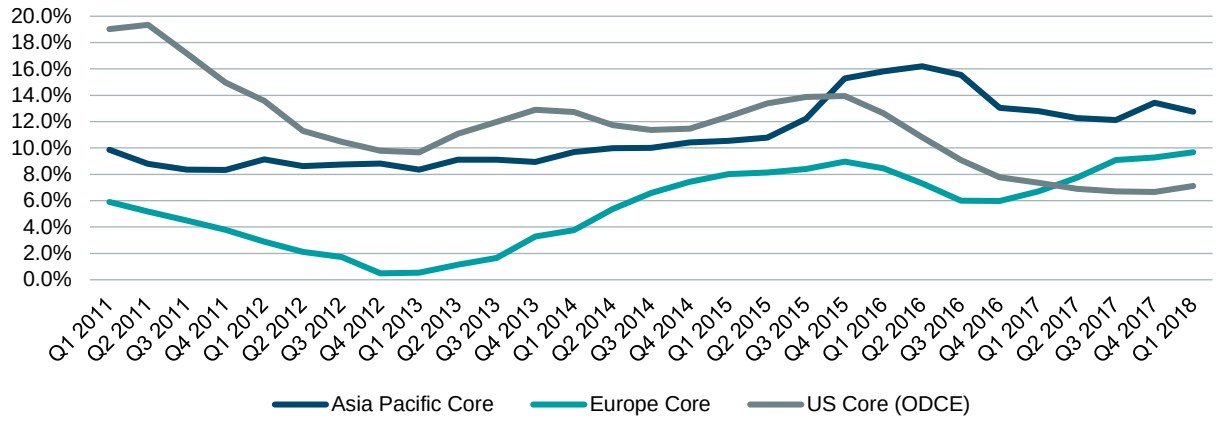
4 / Year in Review and Mid-Year 2018 Total Return Outlook

As of 1Q 2018, the GREFI Core Index show Asia Pacific core funds leading returns once again at 12.8% year-over-year, followed by European core funds at 9.7%, and U.S. core funds at 7.1%. Australia continue to make up the largest share of Asia Pacific funds (66%), followed by China and Singapore (7% each), and Japan (6%). Australia continues to be one of the most mature and growing markets in Asia Pacific. The United Kingdom comprises the largest share of European funds (27%), followed by Germany (19%) and the Netherlands (16%). Despite the country allocation differences, the trends remain consistent with our views earlier in the year with stronger economic growth in Asia-Pacific supporting a stronger real estate outlook. Similarly, conditions continue to strengthen in Europe, while total returns in the U.S. are reverting to more normal levels.

EXHIBIT 8: GREFI DATA SHOWS AN OUTPERFORMANCE OF ASIA PACIFIC CORE FUNDS VS. EUROPEAN AND U.S. CORE FUNDS



Sources: ANREV, INREV, NCREIF, As of June 2018.

While the GREFI Core Index provides geared fund level returns, exhibit 9 below depicts the ungeared property level returns at a country level as reported by MSCI. In the table, we show the most recent returns released. Global commercial real estate returns continue to moderate through the first quarter of 2018. The U.S. one-year return was 7.1%, very similar to at the beginning of the year, but still below the five-year return of 10.0%. Australia's one-year return came in slightly lower at 11.2% from 11.6% at the beginning of the year. Notably, while Japan's unleveraged total return has trended lower, given 10-year bond yields of only 0.10%, the risk premiums in Japan are quite strong and well above average.

In Europe, the Netherlands one-year return was once again strong at 14.8% sharply higher than the five-year return of 8.4%. France, Germany, Norway, Portugal and Spain are also showing better one-year returns compared to their five-year averages.

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EXHIBIT 9: IPD GLOBAL REAL ESTATE PERFORMANCE (LOCAL CURRENCY)

Country	1-year return	5-year return	As of	Index	1-year return	5-year return	As of
Australia	11.2	11.4	1Q18	Japan	6.9	7.5	4Q17
Austria	6.2	5.8	4Q17	Malaysia	6.7	8.7	4Q17
Belgium	6.5	6.1	4Q17	Netherlands	14.8	8.4	4Q17
China	7.9	8.4	4Q17	Norway	11.5	9.4	4Q17
Czech Republic	12.6	7.9	4Q17	Poland	5.8	5.5	4Q17
Denmark	5.7	6.0	4Q17	Portugal	11.6	8.0	4Q17
Finland	6.6	5.8	4Q17	Singapore	5.9	6.9	4Q17
France	10.1	8.8	4Q17	South Korea	6.9	7.6	4Q17
Germany	10.5	7.3	4Q17	Spain	14.8	10.5	4Q17
Global	8.1	8.9	4Q17	Sweden	11.1	10.8	4Q17
Hong Kong	10.3	9.6	4Q17	Switzerland	5.9	6.0	4Q17
Ireland	8.5	18.7	1Q18	UK	10.1	11.3	1Q18
Italy	4.8	3.8	4Q17	USA	7.2	9.8	2Q18

Sources: MSCI, NCREIF. As of August 2018.

Looking forward, exhibit 10 depicts initial yields relative to sovereign bond yields over various time frames. Generally speaking, initial yield spreads are currently slightly lower than they were at year-end 2017, but in most instances, they also remain above their longer term average. Initial yield spreads are lower today in countries such as the U.S., Hong Kong and Korea as a result of higher interest rates. In these countries, initial yield levels have generally held steady and have not seen additional cap rate compression outside of the logistics sector. In other countries such as several European markets and to a lesser extent Australia, initial yield spreads are lower mainly due to further initial yield compression.

Globally in aggregate, the average yield spread to sovereign bond yields was 2.9% at the end of 2017, or roughly 70 bps higher than the long-term average of 2.2%. Over the next year, we forecast a global yield spread of 2.6% after considering our assumptions of cap rate expansions and rate increases. If this occurs as expected, it will provide a spread roughly 40 basis points above the long-term average. Thus, if 10-year sovereign bond yields were to rise 40 basis points, real estate would still provide an income yield risk premium equivalent to its long-term average.

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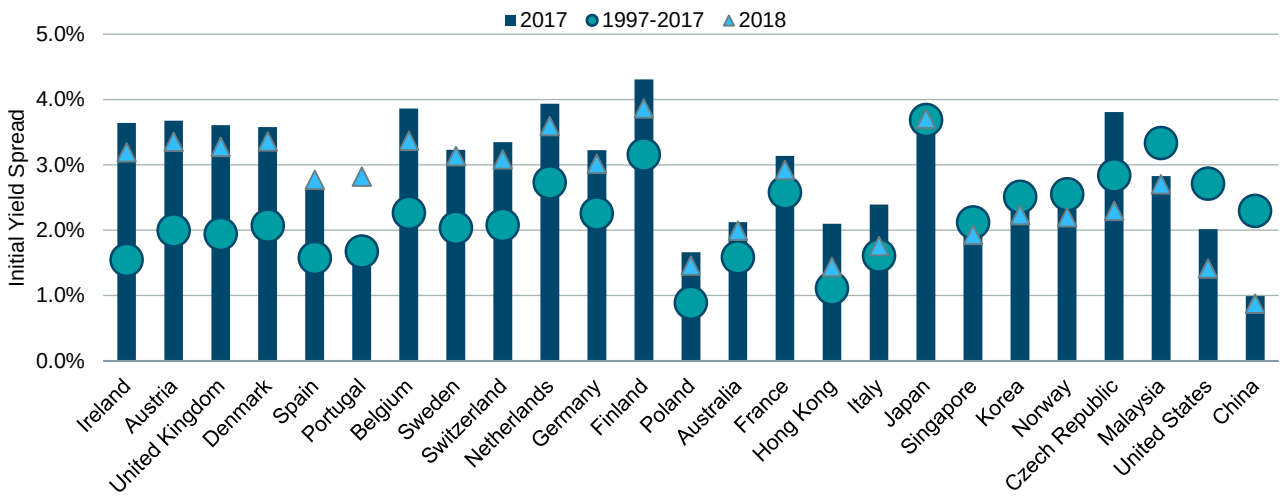
EXHIBIT 10: INITIAL YIELD SPREADS FOR MANY COUNTRIES ARE ABOVE THEIR 20-YEAR AVERAGE



Sources: DWS. As of July 2018. Initial yield spreads for each market based on equal-weight city and sector returns.
Sorted by difference in forecasted 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, 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. Exhibit 11 below depicts our five-year total return view by country and by property sectors. 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 30-50 basis points. Given our sovereign bond views, this results in an income risk premium within a 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 2%-3%. As a result, we expect real estate should provide total returns and risk premiums well ahead of the bond market.

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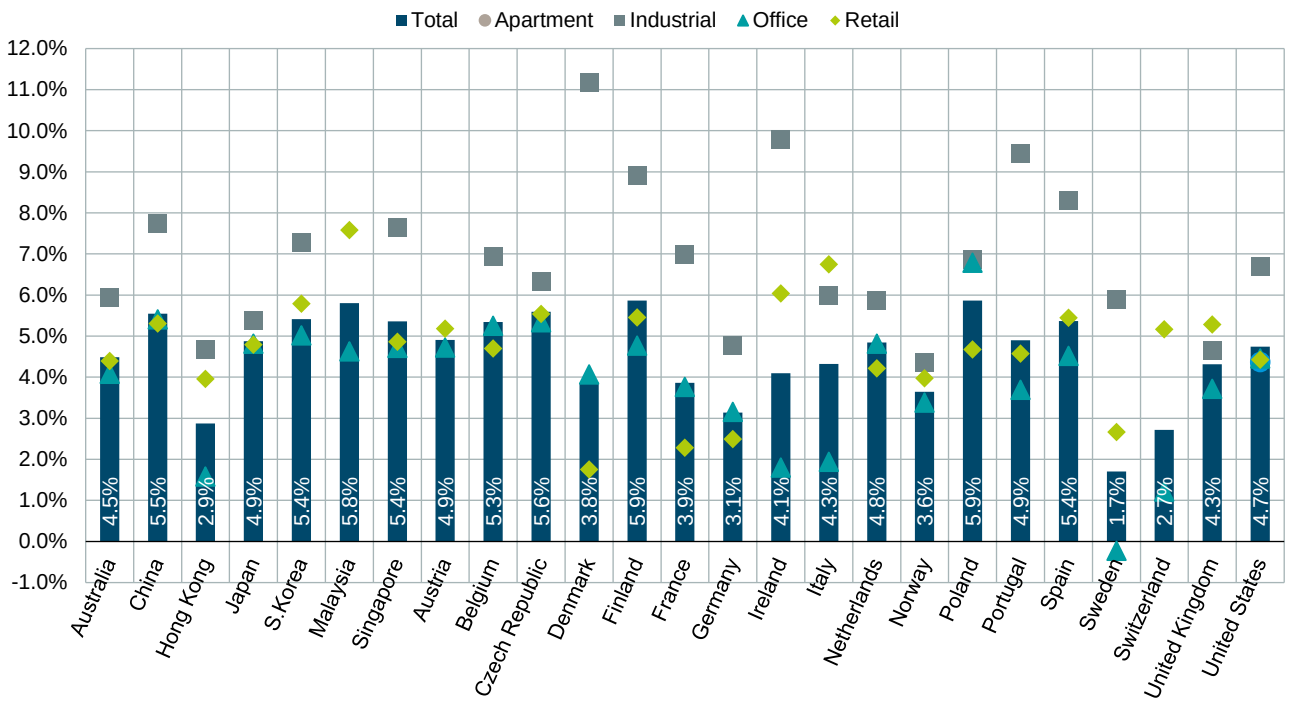
EXHIBIT 11: AVERAGE ANNUALIZED 5-YR FORECAST RETURNS BY COUNTRY AND SECTOR (2018-2022)



Sources: DWS. As of July 2018. 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.

One key message from the exhibit above is the relative sector performance which has not changed since the beginning of the year. We continue to expect industrial/logistics to outperform over the next five years, driven by a few key factors. E-commerce is growing in all regions which have led to higher demand for warehouse space. In certain markets, there is increased demand for urban and last hour logistics locations. Industrial/logistics assets also tend to have higher initial yields compared to other sectors in most markets, although the gap is getting narrower. Most markets lack adequate modern warehouse and logistics space suitable for e-commerce, which would be supportive for rental growth. A key risk for industrial/logistics real estate would be the ongoing trade conflict as global trade is a key component for warehouse demand.

While e-commerce is a growing trend that has threatened traditional brick and mortar retail, we continue to believe in the strength of high quality centers with proven good sales productivity in desirable locations. Positive wage growth in the U.S. should support certain retail property types, including neighborhood shopping centers and high quality malls with good sales productivity in desirable locations. In Europe, we prefer defensive retail such as urban shopping centers and retail parks with strong immediate catchment. In Asia Pacific, we look for regional retail and suburban centers in Sydney, Melbourne and Osaka.

Many core office markets still have elevated pricing and lower initial yields against a backdrop of full employment which limits total return potential. The office sector tend to be the most popular property type for many core investors, which explains the high pricing some investors are willing to ascribe to core office assets. However, returns vary significantly across markets and we still see good opportunities in select markets such as Miami and Orange County in the U.S., Warsaw, and Rotterdam in Europe, and regional markets in Japan in Asia Pacific.

Finally, we refer you to the appendix for a graphical depiction of our five year return forecast for major cities by sector and region across the globe. As shown in the chart, the dispersion in returns globally is quite wide and reinforces our key market calls for outperformance as summarized in the regional sections which follow.

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5 / Outlook for Real Estate by Region

5.1 U.S. Real Estate Outlook

U.S. real estate is performing well. The national vacancy rate is near its lowest level in 17 years and below its 20-year average in every major sector.[3] Rents are rising about 3% annually and net operating incomes (NOI) at 4.6% annually, well above inflation (2%).[4] Since the beginning of 2017 the Federal Reserve has hiked interest rates five times and 10-year Treasury yields have jumped 100 basis points, yet cap rates have edged lower.[5] And according to the NCREIF Property Index (NPI), unlevered total returns to core property have held slightly above 7% (annualized), in-line with their 30-year average on an inflation-adjusted basis (5%).[6]

Moving into the second half of 2018, investors are faced with two key questions: First, how much longer will this positive momentum continue? Second, given the real estate outlook, how should portfolios be structured to produce superior risk-adjusted returns?

On the first question, we believe that the property cycle has at least two years and possibly longer to run. Over the past 60 years, real estate prices have never materially dropped outside of a recession or its immediate aftermath.[7] In our view, the likelihood of a near-term recession is low: Fueled by fiscal stimulus, the U.S. economy has accelerated toward a 3% growth trend, and the yield curve, which has inverted 12-18 months before every recession since 1960, remains upward sloping.[8] To be sure, the yield curve has begun to flatten and it is conceivable that an overheating economy, a trade war, or some other catalyst could trigger a downturn in two or three years. Yet this is not inevitable, and despite the unusual longevity of this expansion (by next summer it will be the longest on record going back to the Civil War), there are precedents for even longer ones abroad (Australia is into its 27th year).[9]

The outlook for real estate fundamentals is positive, in our view. Start with the economy, the principal driver of occupational demand. The labor market is especially robust: more than 1.2 million jobs were created in the first half of 2018 and the unemployment rate fell to nearly its lowest level (3.9%) in 50 years (barring a brief stint at the height of the dot-com boom).[10] For the first time since records began (2000), there were more job openings than unemployed people to fill them.[11] Healthy household finances, booming corporate profits, and fiscal stimulus (tax cuts and higher spending) are expected to keep this momentum on track: GDP growth eclipsed its post-crisis 2% trend in 2017 and leading indicators point to further acceleration toward 3% by year-end.[12]

[3] NCREIF. As of June 2018.
[4] CBRE-EA (rents); NCREIF (NOI); Bureau of Labor Statistics (inflation). As of June 2018.
[5] Federal Reserve (interest rates); NCREIF (cap rates). As of June 2018.
[6] NCREIF. As of June 2018.
[7] Federal Reserve; DWS calculations. As of June 2018.
[8] Bureau of Labor Statistics (economic growth); Federal Reserve (yield curve); DWS calculations. As of June 2018.
[9] NBER (expansion); IMF (Australia). As of June 2018.
[10] Bureau of Labor Statistics. As of July 2018.
[11] Bureau of Labor Statistics; DWS calculations. As of June 2018.
[12] Conference Board (leading indicators); Bureau of Economic Analysis (GDP); DWS calculations. As of June 2018.

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On the supply side, multifamily and commercial construction has leveled off at less than 1% of GDP, in line with its 20-year average, and new starts appear to have receded.[13] Anecdotally, developers have reported that acute labor shortages are causing project delays, an issue that might worsen with enhanced restrictions on immigration (an estimated 25% of the construction labor force is foreign-born).[14] Meanwhile, tariffs have increased prices of steel, aluminum, and lumber. Based on what is under construction, we believe that 2018 will mark the peak year for new supply across sectors in this cycle, with the exception of Retail, which may bounce off depressed levels.

There are important risks to this benign outlook. On the economic front, two key concerns have surfaced: First, international trade tensions, were they to break out into a full-blown trade war, could tip the U.S. into recession (although exports are only 12.3% of GDP, the spillover effects on consumer spending, corporate profits, financial markets, and confidence would amplify any direct impact on foreign demand).[15] Second, with unemployment at very low levels, fiscal stimulus might cause the economy to overheat, prompting the Federal Reserve to hoist interest rates in order to wring out inflation and/or financial imbalances. On the supply side, it is possible that looser financing conditions could overcome cost constraints. Recently enacted modifications to the Dodd-Frank Act softened rules around bank construction financing, and the Federal Reserve has reported a drop in the share of banks that are tightening construction-lending standards.[16]

We believe that these risks are currently low but can increase beyond a two-year horizon. To be sure, we believe that the cycle is in a mature phase, characterized by pockets of over-pricing and excess supply and lower (albeit still competitive) returns. Powerful structural forces, from demographics to corporate densification to e-commerce, are also impacting real estate in ways that transcend the cycle. On the second question, therefore, we believe that a shifting landscape will create winners and losers, expanding the potential to generate index-beating performance through judicious sector and market allocation, among other portfolio strategies.

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 factors, our strategy assigns a strong overweight to Industrial, an underweight to Office, and modest underweights to Apartment and Retail.

- Industrial (Strong Overweight): Industrial eclipsed the NPI in 2011, has been the top performer since 2014, and has widened its lead ever since.[17] Strong fundamentals, driven largely by e-commerce, generated NOI growth of 8.2% (year-over-year, four-quarter moving average) in the first quarter of 2018, its quickest pace on record (35 years).[18] Construction has picked up, but it is largely concentrated in national distribution hubs (e.g., Atlanta, Chicago, Dallas, and the Inland Empire).[19] These markets should perform adequately, but we believe that smaller, local distribution facilities generally offer superior investment prospects.

[13] Bureau of Economic Analysis. As of June 2018.
[14] Migration Policy Institute. As of December 2015.
[15] Bureau of Economic Analysis (exports, GDP); DWS calculations. As of March 2018.
[16] Commercial Mortgage Alert (Dodd-Frank); Federal Reserve (lending standards). As of June 2018.
[17] NCREIF. As of March 2018.
[18] NCREIF. As of March 2018.
[19] CBRE-EA. As of March 2018.

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- Retail (Modest Underweight): A star performer from 2012 through 2015, Retail has lost momentum over the past two years.[20] E-commerce is the obvious culprit, helping to drive some vendors into bankruptcy (e.g., Toys "R" Us) and others to close stores (e.g., Sears and J.C. Penney). Yet Retail is not dead. While e-commerce is growing feverishly, brick-and-mortar sales are also expanding, supported by population and income growth.[21] Construction is virtually nonexistent.[22] Cyclically defensive, the sector can provide useful downside protection. And Retail is not all created equal: Although apparel-heavy Malls have struggled, neighborhood and community centers have been more resilient. We maintain a modest underweight to the sector, but we believe that grocery- and pharmacy-anchored, service-oriented centers have an important place in a portfolio.

- Apartment (Modest Underweight): In recent quarters, surging supply has offset burgeoning demand, causing rent growth to moderate.[23] These forces have tentatively reversed: Construction appears to have peaked but renter-household growth has also slowed, possibly signaling a lifestyle shift among ageing Millennials.[24] We are modestly Underweight the sector pending a more visible path to improved fundamentals. The scales could tip in a positive direction: Rising home prices and mortgage rates and the reduction of housing tax breaks might sustain rental demand irrespective of demographics. For now, we favor garden apartments in highly amenitized suburban locations, where supply has been less abundant than in the (luxury) urban high-rise segment.

- Office (Underweight): Total returns have edged higher over the past year, on both an absolute and a relative basis.[25] Although demand, occupancy, and rent growth have been lackluster (at least on a national basis), NOI growth has been much stronger, likely the result of landlords rolling leases signed several years ago to higher market rates.[26] Further mark-to-market gains are likely: within the NCREIF-ODCE universe, in-place rents are approximately 12% below market levels.[27] Despite this crucial support, we maintain an underweight to Office for several reasons, including: corporate densification, downside cyclical risks, limits to job creation amid 4% unemployment, and pockets of oversupply (e.g., New York and Washington D.C.). Nevertheless, we see value in certain locations, including Los Angeles, Boston, Portland, Seattle, Texas, and Florida.

Coastal "gateway" markets (e.g., New York) have historically produced superior rent growth and price appreciation over the long term, courtesy of 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 over shorter time periods owing to disparities in local pricing, supply, and economics.

It is noteworthy that over the past five years, relative real estate returns have displayed a strong correlation with job creation. Extrapolating this trend into the future would augur well for many regional markets, particularly in the Sunbelt, where lower costs are helping to attract an influx of businesses and people. Tax reform, which capped mortgage and state and local tax deductions, might reinforce this trend. Meanwhile, any curbs on immigration would exacerbate the impact on gateway markets, which draw a disproportionate share of foreign newcomers.

Nevertheless, we see relative opportunities and risks across both Gateway and Regional markets. In particular:

- Gateway Markets: We favor Los Angeles and Boston, technology-supported economies where supply is largely under control. However, we are more cautious toward San Francisco, New York, and Washington D.C., which have substantial supply pipelines (albeit with important property-type exceptions, notably in the industrial sector).

[20] NCREIF. As of June 2018.
[21] Census Bureau; DWS calculations. As of June 2018.
[22] CBRE-EA. As of June 2018.
[23] CBRE-EA. As of June 2018.
[24] Census Bureau; DWS calculations. As of June 2018.
[25] NCREIF. As of June 2018.
[26] CBRE-EA (demand, occupancy, rent growth); NCREIF (NOI growth). As of June 2018.
[27] Altus. As of March 2018.

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- Regional Markets: Seattle, Portland, and Oakland have dynamic economies with attractive pricing relative to other coastal cities. Although less protected from new supply, we also see tactical opportunities in the Sunbelt, including Atlanta, Nashville, Phoenix, Texas, and Florida. While Houston is saddled with elevated vacancies, a revival of its energy-driven economy, the curtailing of new construction, and a pricing adjustment have improved its medium-term prospects.

5.2 European Real Estate Outlook

The European real estate market remains in good health. Trailing return indicators are running well above history while occupier fundamentals outside of the retail sector are buoyant. Despite some unease over slower economic growth and worries about Brexit, economic data has on the whole remained fairly robust. Lead indicators are positive, jobs are being created and the short-term outlook for GDP growth across much of Europe is still well above history.

So far, any moderation in economic growth has not had a material impact on the demand for real estate space. As we were expecting at the start of the year, the first half of 2018 has continued to see robust levels of take-up across much of the industry, and on the whole we have revised up our rental growth outlook.

Following a record end to 2017 the investment market started 2018 slowly. Against expectations, this may well be a pause in proceedings rather than a sustained slowdown in demand. Indeed, there are plenty of reasons to believe that this is the case. Survey evidence remains supportive, dry powder is abundant, lending terms have loosened and the relative return from real estate still remains compelling when compared to other fixed income products.

When viewed on a twelve month rolling average, the majority of major European markets were still recording investment volumes in excess of a year ago. Nonetheless, with less than €50 billion transacted during the first quarter this was the weakest start to a year since 2014.[28]

While it seems reasonable to assume that investment volumes this year will be less than they were in 2017, we do not expect a price correction soon. Indeed, looking at the early evidence from the first half of the year, prime yields still look to be edging lower.

It is though increasingly likely that 2018 will be the last year where yield compression is a significant driver of performance. Prime yields are well below previous historical lows and the spread over the risk free rate is moving more in line with what we've seen in the past. Beyond this year, yields across most markets should stabilise and then start to edge higher as central banks withdraw liquidity. However this should be a very gradual process, with prime office yields rising 40 basis points to 4.0% by 2022.

As was the case six months ago, the outlook for returns is frontloaded. With prime yields nearing a floor, total return will almost certainly be lower over the next five years, when compared to the exceptionally high levels we've witnessed over recent years. As ever though, Europe remains a diversified market, with differing outlooks by city, country and sector.

While the short-term outlook may be good, a number of core markets are now looking fully priced. With prime office in the likes of Munich and Paris CBD yielding just 3%, we see few attractive opportunities for acquisitions in this prime segment.

[28] Real Capital Analytics, July 2018

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We still see the best opportunities in Finland, the Benelux, parts of Spain and increasingly the CEE – particularly Warsaw. In time London may also offer more attractive opportunities, however much depends on the outcome of the Brexit negotiations.

At the sector level we continue to favour logistics over office and retail. While we caution against the belief that all logistics assets will perform, as a whole, low vacancy and a structural shift in demand, should drive rents for some time to come.

Office: Following a record performance in 2017, further employment growth supported another increase in take-up during the first quarter, rising 5% year-on-year. Paris maintained its upwards trend while the German cities continued to be constrained by a lack of space. London again surprised on the upside, albeit partly due to a surge in demand from flexible office operators.

Healthy demand and a contained pipeline have sustained further falls in vacancy rates, which at 7.7% are now at their lowest point in a decade. While development starts have edged higher in recent years, they're well off the levels seen in the previous cycle. In this context, prime rents increased again in the first quarter of 2018.

Over the period 2018 to 2022, European office rents are anticipated to grow by an average of 2.1% per annum, exceeding the aggregate level for the past decade. A combination of job creation and lasting undersupply in most central sub-markets in the near term should continue to put further upwards pressure on prime rents.

German and Southern European cities still rank high in the list for rental growth, the latter benefiting from improving market conditions and prime rents that still way below their previous peaks. In contrast, affordability issues and supply are a concern in Dublin and Stockholm, while Brexit continues to weigh on our outlook for Central London.

The office sector looks to be in a mature phase of its cycle. With prime yields in the likes of Paris and Munich hovering around 3%, and values in many markets well above previous highs, we see less room for growth. Nonetheless, the market is not without opportunities. Cities such as Warsaw are projected to substantially outperform, and with Grade A vacancy near record lows, active management strategies are also looking attractive.

Retail: The first half of 2018 has not been an easy one for the retail sector. Many occupier markets are showing signs of stress while real estate investors are extremely cautious. These difficulties are most clearly visible in the vacancy figures.

To varying degrees this picture is present across much of Core Europe. However, Southern Europe and the CEE are still tending to outperform. With much lower levels of ecommerce penetration, generous welfare payments in Poland and rising disposable incomes in Iberia, footfall and rental growth have been well above the rest of Europe.

Retailing conditions are set to be difficult for the foreseeable future. As retailers transform their business models, demand for floor space will be under pressure, pushing up vacancy and keeping a lid on rental growth. The best space will attract tenant demand, but even here we see less competitive tension, and in turn prime shopping centres are projected to record annual rent growth of just 1.4%.

There is a risk of tarring all retail with the same brush. The sector may be struggling but this does not mean all retail will underperform. Despite the ubiquitous transfer of sales online, in-store growth in Ireland, Poland, Czechia and Spain are set to be robustly positive for the next five years.

While high streets have been the outperformer in the past, with vacancy now edging higher and prime yields at 3% we tend to see fewer opportunities. Retail parks on the other hand continue to attract demand, offering tenants affordable and flexible space which works well with their transforming needs.

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Logistics: Demand across Europe for logistics remains strong with take-up at record levels and investment appetite high. Occupancy is being supported by a combination of a cyclical economic recovery and structural drivers. The unrelenting march of ecommerce, the key structural driver for logistics demand continues to re-define supply chains, driving requirements for XXL distribution and e-fulfilment centres. Vacancy is now just 5%, well below the 15% observed in 2009.

Of the three main sectors, logistics is by far our top performer over the next five years. Almost all markets outside of the United Kingdom and selective German cities are expected to see returns in excess of the all property average.

At the city level we see the highest returns in Paris, Madrid and Barcelona, Dublin and parts of the Nordics. Given their size Madrid and Paris stand out in terms of opportunities. Paris should follow London's lead where competition for space has driven rents to record high levels, and while development activity has been strong in the Spanish capital, the recovery in the economy has led to a surge in demand.

5.3 Asia Pacific Real Estate Outlook

Macroeconomic conditions in Asia Pacific saw a significant recovery in 2017 and the first half of 2018, supported by the stronger-than-expected cyclical upturn in global trade conditions since 2016. Meanwhile, unemployment rates either held steady or continued to declined, particularly in Japan and Australia. Despite the tightening in global financial conditions and higher economic growth, monetary policies in Asia remain broadly accommodative underpinned by low inflationary pressures. Nonetheless, risk factors persist ranging from uncertainties surrounding China's growth and economic health, tightening of interest rate policies in major developed nations to global geopolitical risks, which could adversely impact regional trade and export demand. Barring any shocks or unexpected shifts in the baseline, regional economic growth is expected to remain broadly stable at 5.6%.[29] in 2018 and 2019.

Real estate performance across much of the Asia Pacific region remains healthy on the back of strong capital markets and stable occupier fundamentals. Across the region, key cities in Japan, China, Hong Kong, Singapore and Australia continued to see healthy office leasing demand in the first half of 2018, while the weight of capital targeting quality assets have contributed to further cap rate compression in core markets. The regional markets in Japan with healthy fundamentals appear increasingly attractive from a risk-return perspective within the context of a core strategy portfolio.

The outlook of property returns which have been heavily front loaded in our previous forecast could flatten over our forecast horizon through 2022. Total returns in the coming years are likely to be driven mostly by income yields with capital growth likely capped by yield expansion driven by increasing prospects of higher interest rates. Nevertheless, in our view, Asia Pacific commercial real estate markets are expected to deliver healthy core unlevered aggregate total returns ranging between 5.5% - 7.3% per annum (by sector) over the next five years with industrial returns outperforming office and retail returns.

Office: Office markets in core cities across Asia Pacific continued to perform relatively well, underpinned by steady occupier demand trends. Over the past twelve months, Singapore, Sydney and Melbourne led the region in effective rental growth driven by a broad base recovery in tenant demand led by business services. Rents in Hong Kong Central were supported by occupier demand from mainland Chinese financial services firms, and in Tokyo rental growth was supported by tight vacancy levels. At the other end, rents in markets such as Seoul and Kuala Lumpur remain in cyclical downturn weighed down by subdued demand and significant short-term supply pressures. Rents in some Australian cities (Brisbane, Perth, Adelaide) have shown some early signs of stabilization amidst a recovery in tenant demand.

[29] IMF Regional Economic Outlook: Asia Pacific, May 2018.

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The regional outlook for the office sector remains broadly positive with a reacceleration in economic activity and favorable demand-supply dynamics for most key office markets. Over the five year forecast period till 2022, 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, particularly in Brisbane. Singapore, which experienced a supply surge in 2017, is expected to benefit from a strong cyclical recovery as supply pressures subside significantly. On the other hand, vacancy levels are projected to increase in Kuala Lumpur, Beijing and Guangzhou where large development pipelines are underway.

The medium term rental growth outlook remains relatively healthy across the region. We expect to see the highest rental growth momentum in Singapore underpinned by cyclical demand recovery combined with limited supply. Robust growth is also expected in the core cities of Australia, while rental growth in Japan's regional cities is supported by strong corporate demand. At the other end, significant incoming supply pressures are likely to cause negative rental reversions in Kuala Lumpur.

The APAC office sector is projected to yield mid to high single digit annual total returns in most cities over the next five years through to 2022, 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. Good opportunities are also appearing for investors willing to ride on the current cyclical rental recovery in Singapore, while offices in Seoul are projected to yield moderate returns underpinned by decent income yields. On the other hand, returns in Tokyo should be more subdued due to current tight cap rates, while forecast five-year performance in Hong Kong is also projected to be relatively weak on the back of future potential cap rate increases.

Retail: The rise in e-commerce remains a major driver in redefining the retail landscape in Asia Pacific. Multi-channel or 'Omni-channel' retailing as well as the emergence of mobile-based transactions have seen retailers changing their retail operating models and increasing the selection of goods and services available online often at lower prices than in-store. Data from eMarketer.[30] indicates the e-commerce market in Asia Pacific grew strongly at 31% in 2017, far outpacing the 7.7% 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 accounts for 83% of the online retail sales in Asia Pacific. The share of e-commerce sales as a proportion of total retail sales in China had grown rapidly from approximately 15% in 2015 to over 23% in 2017. E-commerce share levels in Japan and Australia are currently just shy of the United States, but emerging trends such as the entry of Amazon into the Australian market towards end-2017 indicate that the online retail is likely to gain momentum in the region.

Diverging trends have also developed in the retail environment across the region. Retail sales continue to underperform in some major markets in the region including Hong Kong, Singapore and Malaysia due to soft domestic consumption and subdued tourist spending. On the other hand, key cities in China, Australia, South Korea and Japan continue to see healthy, moderate rental growth underpinned by resilient domestic consumption trends or strong tourist arrivals, despite competition from the ongoing proliferation of online retail. Nonetheless, the retail environment remains in favour of tenants as landlords are increasingly forced to offer better incentives especially in the discretionary retail space. Vacancy rates could start to inch upwards in decentralized areas on the back of growing supply while occupier demand from retailers is likely to remain stable in the majority of locations in 2018 and in early 2019.

Over the five-year forecast horizon, Shanghai and Australian top cities are expected to experience the strongest growth in retail rents in the region, although growth should be modest in sub regional centers (SRC) in Australia, where demand could

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

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be adversely affected by e-commerce and a slowdown in the housing market. In Seoul and Tokyo, retail rental growth is likely to be kept modest at around 1% - 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 with rental growth affected by high occupancy costs and diminished tourist spending. Looking ahead, retail assets in China and Australia appear attractive underpinned by higher income yields. While Tokyo looks attractive with the highest projected excess returns (i.e. annual total returns minus bond yields), healthy spreads of circa 2%-4% are expected in most other key retail markets in the region.

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. Amazon established its foray into the Singapore market in the second half of 2017 with the launch of Amazon Prime Now, with its Singapore facility serving as its largest Prime Now only fulfillment centre in the world. Amazon also entered the Australian market in late 2017. This followed Alibaba's own expansion through several acquisitions of local and regional e-commerce players operating within and outside China, outlining the increasing growth potential of online retail and needs for logistics spaces in the region.

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 at around 1.0-3.0% per annum in the region, broadly in line with inflation trends as tenants, 3PL companies, retailers and consigners remain mindful of logistics costs, with the exception of 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 is expected to remain attractive in the next five years. Five-year return forecasts for key cities in Australia, China, Singapore and Seoul look favourable at high levels in excess of 7%, though investors could find themselves constrained by the limited deal flow of high quality completed assets in most of 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.

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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 an investor's domestic portfolio 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. Investors may also be able to minimize hedging costs and currency drag by establishing a portfolio which is also diversified by currencies. Investors that adopt a longer investment horizon can expect to minimize currency fluctuations, thereby limiting the need for complex hedging overlays.

EXHIBIT 19: DOMESTIC VS. HEDGED EXPECTED REAL ESTATE TOTAL RETURNS (2018-2020)

			Hedged Country Level Returns											
Investor Domicile	3-Yr Rate Swap	Home Country Return	Australia	Japan	Korea	China	Germany	Swiss	U.K.	France	Nether lands	Spain	Italy	United States
Australia AUD	2.2%	5.0%	5.0%	7.8%	5.3%	3.7%	7.0%	6.5%	5.2%	7.9%	9.2%	10.1%	8.8%	4.9%
Japan JPY	0.1%	5.7%	2.9%	5.7%	3.2%	1.7%	4.9%	4.4%	3.1%	5.9%	7.1%	8.0%	6.7%	2.9%
Korea KRW	1.4%	4.6%	4.2%	7.1%	4.6%	3.0%	6.3%	5.8%	4.5%	7.2%	8.5%	9.4%	8.1%	4.2%
China CNY	3.8%	5.3%	6.6%	9.4%	6.9%	5.3%	8.7%	8.2%	6.8%	9.6%	10.8%	11.8%	10.5%	6.5%
Germany EUR	0.0%	4.9%	2.9%	5.6%	3.2%	1.6%	4.9%	4.4%	3.1%	5.8%	7.0%	8.0%	6.7%	2.8%
Swiss CHF	-0.3%	4.0%	2.5%	5.3%	2.8%	1.3%	4.5%	4.0%	2.7%	5.4%	6.7%	7.6%	6.3%	2.5%
UK GBP	1.2%	4.3%	4.1%	6.9%	4.4%	2.8%	6.1%	5.6%	4.3%	7.0%	8.3%	9.2%	7.9%	4.0%
US USD	3.0%	5.7%	5.7%	8.6%	6.1%	4.5%	7.8%	7.3%	6.0%	8.7%	10.0%	10.9%	9.6%	5.7%
Local Currency Return			**5.0%**	**5.7%**	**4.6%**	**5.3%**	**4.9%**	**4.0%**	**4.3%**	**5.9%**	**7.1%**	**8.1%**	**6.8%**	**5.7%**

Source: DWS, Bloomberg. As of July 2018.
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.

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EXHIBIT 20: COUNTRY LEVEL MARKET RETURN CORRELATIONS (LOCAL CURRENCY – HEDGED)

	1998-2017	Australia	Japan	South Korea	China	Germany	Swiss	United Kingdom	France	Nether lands	Spain	Italy	United States
Investor Domicile	Australia	1.00											
	Japan	0.79	1.00										
	South Korea	0.69	0.56	1.00									
	China	0.16	0.21	0.58	1.00								
	Germany	0.56	0.39	0.24	(0.19)	1.00							
	Swiss	0.44	0.13	0.61	0.08	0.37	1.00						
	United Kingdom	0.45	0.45	0.53	0.10	0.28	0.58	1.00					
	France	0.77	0.43	0.66	(0.05)	0.74	0.70	0.54	1.00				
	Netherland	0.75	0.67	0.50	(0.16)	0.69	0.23	0.52	0.67	1.00			
	Spain	0.74	0.74	0.51	(0.21)	0.62	0.50	0.67	0.80	0.79	1.00		
	Italy	0.62	0.48	0.48	(0.29)	0.59	0.54	0.30	0.71	0.62	0.70	1.00	
	United States	0.85	0.76	0.81	0.18	0.49	0.38	0.54	0.68	0.65	0.73	0.47	1.00

Source: DWS. As of July 2018. Past performance may not be indicative of future results.

Since our last Global Strategic Outlook in March 2018, U.S. interest rates have notably increased, thus pushing up the three-year swap rate by ~50 bps. This creates a hedging gain for U.S. investors when investing internationally. In addition, the U.S. Dollar has rallied against major currencies in recent months, thus U.S. investors would have better buying power overseas.

Generally, investors from the U.S. and Asia Pacific should find many European markets attractive due to hedging gains that help boost total returns. Likewise, European-based investors should find other markets in Europe to be attractive, as well as Japan. Investors based in the U.S., Switzerland and the U.K. should find Japan and Australia appealing. The U.S. would still be an attractive investment destination for investors based in Switzerland, Japan, Korea and China assuming a more specific sector allocation strategy.

From a diversification standpoint, hedged returns correlations are low for most countries. Correlations are even lower on an unhedged basis, but investors would face more currency volatility in exchange for greater diversification.

6.1 Australian Investor Allocation

For an Australian investor, we believe their home market can potentially provide an annual total return of 5.0% per year over the next three years, with industrial producing total returns of 6.0% ahead of office and retail.

Referring to exhibit 19, our forecasts suggest Australian investors could outperform their domestic market by investing in Japan and some European countries including Germany, Switzerland, France and Netherlands. Australian investors also

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benefit from currency hedging gains since swap rates in Australia are about 200 bps higher than in Japan and the Eurozone. In local currency terms, the Netherlands and Spain are expected to outperform the Australian real estate market by 210-410 bps. After hedging gains, the outperformance would be 420 bps for the Netherlands and 510 bps for Spain. Real estate correlations are for these countries range from 0.44 for Switzerland to 0.77 for France, which would add diversification to an Australian investor's portfolio.

6.2 Japanese Investor Allocation

We believe Japanese investors can potentially obtain total returns of 5.7% in their home market over the next three years. The industrial sector is expected to outperform with total returns at 5.9%, followed by office at 5.8% and retail at 5.3%.

Referring to our hedged return chart (exhibit 19), our forecasts suggest Japan-based investors would find European markets as most appealing due to similarly low interest rates. More specifically, the Netherlands and Spain, which in local currency terms are expected to deliver total returns of 7.1%, 8.1% and 6.8%, respectively. Hedged returns are fairly similar given hedging costs are insignificant due to minimal interest rate differentials between Japan and the Eurozone. The correlation between Japanese real estate returns and these countries are not terribly high, at 0.67 for the Netherlands and 0.74 for Spain which adds to the case for diversification.

France also provides attractive hedged returns of 20 bps ahead of the local Japanese market. Europe provides good diversification for Japan-based investors due to low correlation ranging from 0.13 in Switzerland to 0.74 in Spain.

The U.S. could still be appealing assuming a more selective sector allocation. We are still forecasting industrial real estate to outperform at 7.9% total return for the next three years, and 5.1% after accounting for hedging costs which provides a competitive return relative to their home market as well as some diversification benefits.

6.3 South Korean Investor Allocation

We believe the South Korean real estate market can potentially deliver total returns of 4.6% over the next three years. The industrial sector is expected to outperform with total returns of 6.5%, whereas the retail market is expected to provide a total return of 4.9%, while the office market lags with an expected return of 4.2%.

Our hedged returns chart shows the most attractive countries for South Korean investors are Japan and certain European countries, including Germany, Switzerland, France, Netherlands and Spain. These markets have low swap rates compared to South Korea which adds to returns. We expect hedged returns for these markets to range from 5.8% to 9.4%. These markets also provides good diversification due to low return correlations. Correlations are the lowest with Japan and Germany at 0.56 and 0.24, respectively, and are highest with the France and Switzerland at 0.66 and 0.61, respectively.

6.4 German Investor Allocation

Our forecasts show that total returns for the German real estate market are in the range of 5.6% p.a. over the next three years, led by industrial at 7.6%. German retail is expected to underperform at 2.5%.

German investors will likely find other European markets to be attractive investment destinations, particularly Spain, and the Netherlands. We forecast returns for the Netherlands and Spain to be 7.1% and 8.1%, respectively. As these countries also use Euro as its currency, there are no associated hedging costs. Correlations with these markets are 0.69 for the Netherlands and 0.62 for Spain, providing some diversification benefits.

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France also provides good opportunities as we forecast returns to be 90 bps ahead of the German local market. Japan may also be a good investment destination as it provides good diversification as return correlations are only 0.39 and hedged returns are 70 bps ahead of Germany's.

6.5 Swiss Investor Allocation

We forecast Swiss investors to have relatively muted home country returns of 4.0%. The retail sector is expected to outperform at 6.0% with office expected to generate a total return of 2.8%.

According to our hedging chart, the most attractive markets for Swiss investors are Japan, France, the Netherlands and Spain. We forecast hedged returns for these countries to range from 5.3% to 7.6%. Swiss investors would experience currency hedging losses as the three-year swap rate in Switzerland is -0.3%, compared to 0.0% for the target European markets. Despite the hedging losses, real estate returns in these countries are still attractive.

Correlations vary quite greatly across these markets. The lowest correlation is with Japan at 0.13 and the highest correlation with France at 0.70. A case for diversification can be made for the markets with relatively low correlations, which would be Japan, the Netherlands and Spain.

A case can be made for investing in the U.S. and Germany if investors are more selective of sectors and markets. For example, U.S. industrial is forecasted to deliver 7.9% total returns in local currency terms, and 4.7% after accounting for hedging costs. U.S. industrial real estate would then deliver returns 70 bps ahead of Swiss home country returns, and only 0.38 correlated. German industrial is forecasted to be 6.6% in local currency terms, and 6.2% after accounting for hedging costs, still 220 bps ahead of Swiss home country returns.

6.6 U.S. Investor Allocation

We forecast U.S. total returns to be 5.7% over the next three years, with the industrial sector leading at 7.9%, and the retail sector lagging at 4.7%.

Referring to our hedging chart, most markets screen as attractive for U.S. investors, with the most appealing being European countries (Germany, Switzerland, U.K. France, the Netherlands and Spain). Hedged total returns for European countries range from 7.3% to 10.9%, boosted also by currency hedging gains against the Euro. Hedging gains for U.S. investors investing in these target European countries are expected to add approximately 2.9% to total returns. Similarly, hedged returns for Japan are also expected to be boosted by currency hedging gains. Local currency returns in Japan is 5.7%. Hedged returns for the U.K. and South Korea are 30-40 bps ahead of local market U.S. returns. Finally, on a hedged basis, returns in Australia are commensurate with a U.S. investor's home country return. However, higher returns are available on a more selective basis in certain office and industrial sectors in Australia.

Correlations vary greatly across these markets. The lowest correlation is with Switzerland at 0.38 and the highest correlation is with Australia at 0.85. U.S. investors can diversify their portfolio by gaining exposure to certain markets with low correlations, including Germany, Switzerland, and the U.K.

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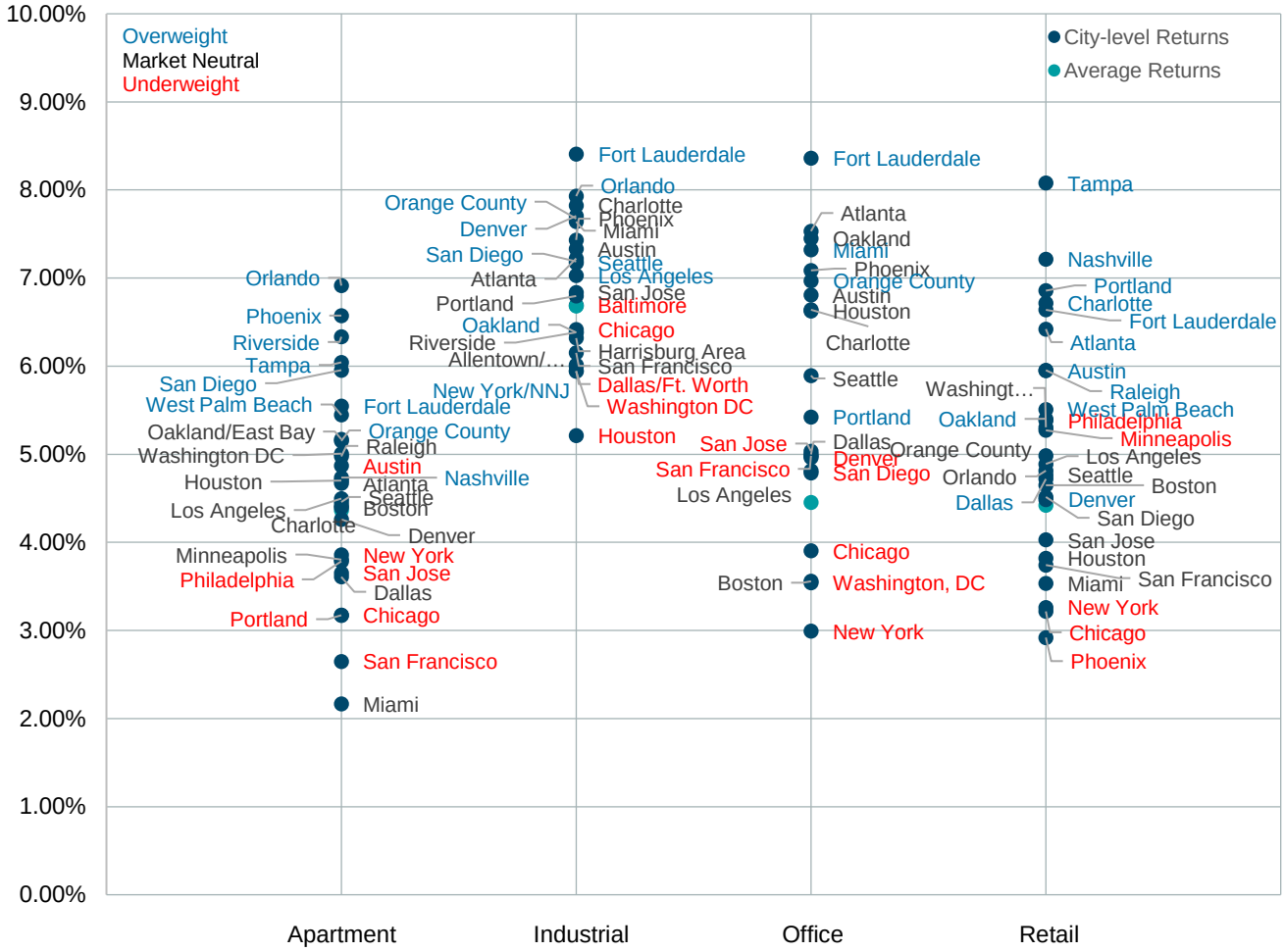
7 / Appendix

EXHIBIT 21: UNITED STATES DISPERSION OF CITY-LEVEL RETURNS BY SECTOR (DWS 5-YEAR TOTAL RETURN NET OF CAPITAL COSTS FORECASTS)



Source: DWS. As of September 2018.

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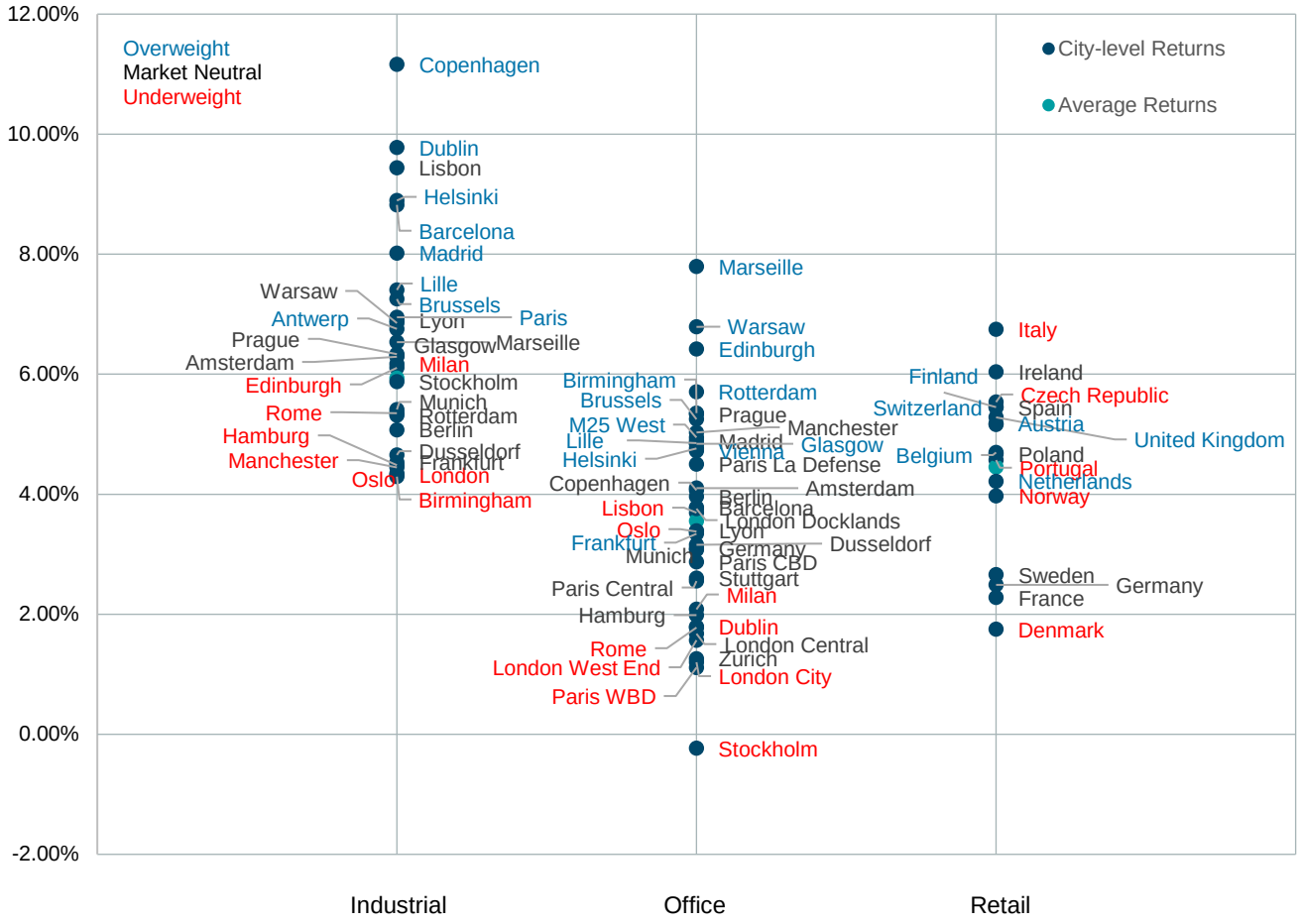
EXHIBIT 22: EUROPE DISPERSION OF CITY-LEVEL RETURNS BY SECTOR (DWS 5-YEAR TOTAL RETURN NET OF CAPITAL COSTS FORECASTS)



Source: DWS. As of September 2018.

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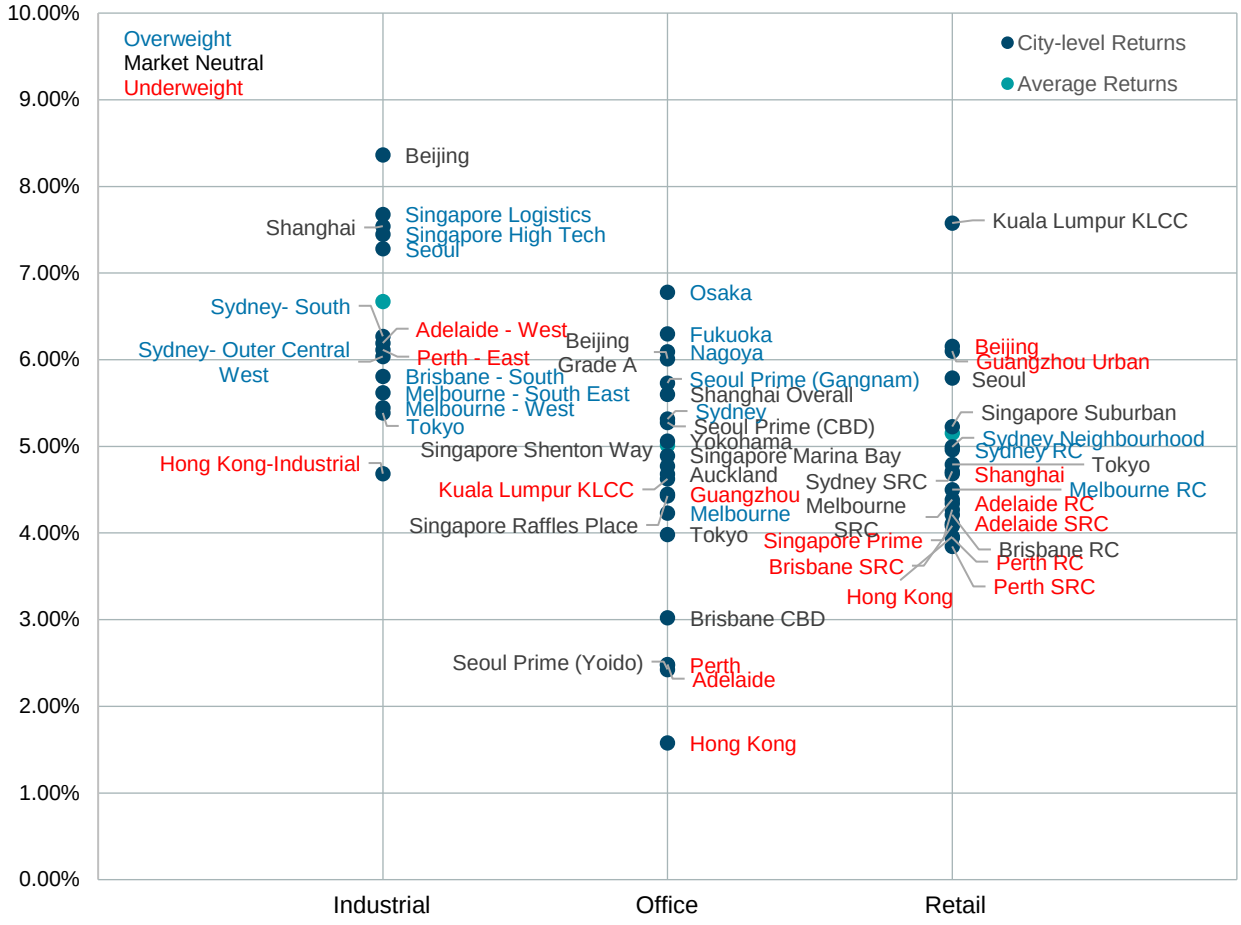
EXHIBIT 23: ASIA PACIFIC DISPERSION OF CITY-LEVEL RETURNS BY SECTOR (DWS 5-YEAR TOTAL RETURN NET OF CAPITAL COSTS FORECASTSC COSTS FORECASTSC



Source: DWS. As of September 2018.

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The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time.

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

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

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Research & Strategy—Alternatives

OFFICE LOCATIONS:

Chicago
222 South Riverside Plaza
26th Floor
Chicago
IL 60606-1901
United States
Tel: +1 312 537 7000

Frankfurt
Taunusanlage 12
60325 Frankfurt am Main
Germany
Tel: +49 69 71909 0

London
Winchester House
1 Great Winchester Street
London EC2N 2DB
United Kingdom
Tel: +44 20 754 58000

New York
345 Park Avenue
26th Floor
New York
NY 10154-0102
United States
Tel: +1 212 454 6260

San Francisco
101 California Street
24th Floor
San Francisco
CA 94111
United States
Tel: +1 415 781 3300

Singapore
One Raffles Quay
South Tower
20th Floor
Singapore 048583
Tel: +65 6538 7011

Tokyo
Sanno Park Tower
2-11-1 Nagata-cho
Chiyoda-Ku
18th Floor
Tokyo
Japan
Tel: +81 3 5156 6000

TEAM:

Global

Mark Roberts
Head of Research & Strategy
mark-g.roberts@dws.com

Jessica Elengical
Head of ESG Strategy
jessica.elengical@dws.com

Gianluca Minella
Infrastructure Research
gianluca.minella@dws.com

Yasmine Kamaruddin
Global Strategy
yasmine.kamaruddin@dws.com

Americas

Kevin White
Head of Strategy, Americas
kevin.white@dws.com

Brooks Wells
Head of Research, Americas
brooks.wells@dws.com

Ross Adams
Industrial Research
ross.adams@dws.com

Liliana Diaconu
Office Research
liliana.diaconu@dws.com

Ana Leon
Retail Research
ana.leon@dws.com

Michael Kodesch
Capital Markets Research
michael.kodesch@dws.com

Ryan DeFeo
Property Market Research
ryan-c.defeo@dws.com

Joseph Pecora
Apartment Research
joseph.pecora@dws.com

Europe

Matthias Naumann
Head of Strategy, Europe
matthias.naumann@dws.com

Simon Wallace
Head of Research, Europe
simon.wallace@dws.com

Tom Francis
Property Market Research
tom.francis@dws.com

Martin Lippmann
Property Market Research
martin.lippmann@dws.com

Farhaz Miah
Property Market Research
farhaz.miah@dws.com

Julien Scarpa
Property Market Research
julien.scarpa@dws.com

Asia Pacific

Koichiro Obu
Head of Research & Strategy, Asia Pacific
koichiro-a.obu@dws.com

Natasha Lee
Property Market Research
natasha-j.lee@dws.com

Seng-Hong Teng
Property Market Research
seng-hong.teng@dws.com

Hyunwoo Kim
Property Market Research
hyunwoo.kim@dws.com

t