PROPRIETARY RESEARCH | SEPTEMBER 2021

The Case for European Core

HinesView
INSIGHT FROM INVESTMENT MANAGEMENT

Hines

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Executive Summary

Europe offers twin benefits of stable returns with lower volatility and diversification to international investors with a deep opportunity across markets and sectors. Increased weighting towards logistics and residential, despite elevated pricing, ought to “fix” European relative underperformance while further enhancing stability of return.

Hines Research expects capital to continue to flow into European core. Significant dry powder, increased fundraising momentum and institutional under-allocation all point to more investment in real estate. Europe faces imbalances between its share of global core property and the share of global core fund investment in European core.

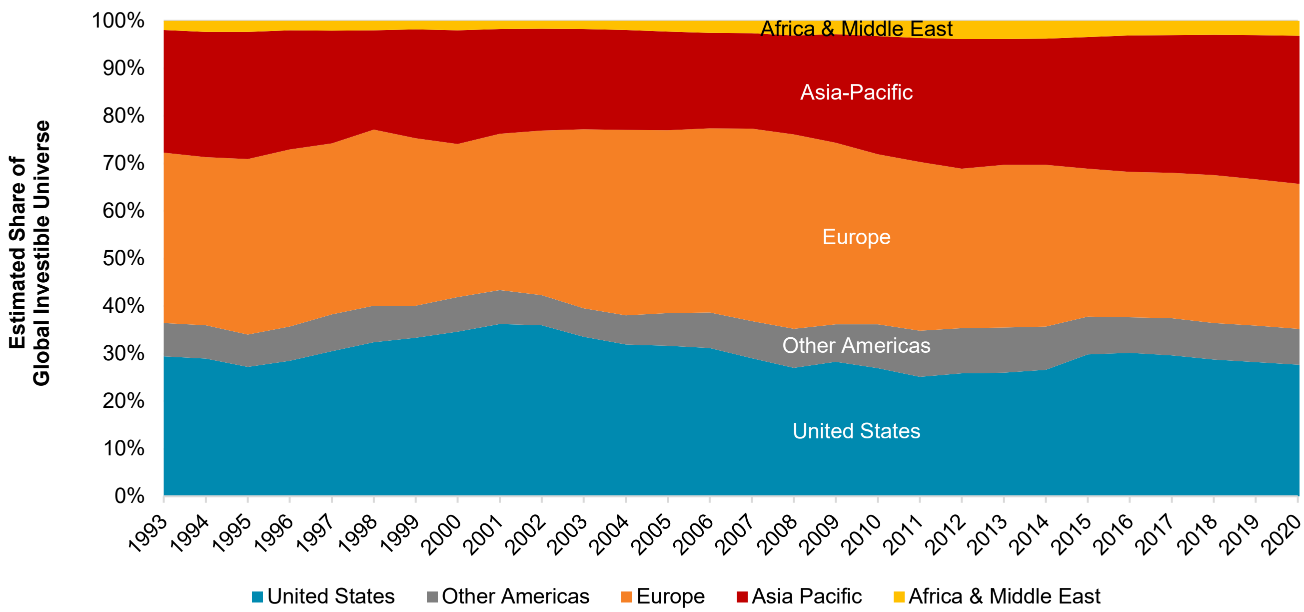
Market and property selection are expected to be very important, especially as yield compression becomes less of a contributory factor to performance. Investors will need to navigate ongoing structural changes, balancing strategic long-term trends with tactical short to mid-term cyclical factors.

Europe as the Great Diversifier and Stabilizer

Real estate is invariably a global business. Today, around two-thirds of capital is estimated to be invested outside of the North American market, with Europe comprising a major share. For investors with a global view, the market share of capital by region can provide a geographic allocation formula, with the respective market shares per region a suitable proxy for a passive market weight.

This would imply an equally weighted allocation of roughly 30% to the U.S., 30% to Europe and 30% to Asia-Pacific, with the remaining 10% allocated to other parts of the Americas and MENA. By investing outside of home markets, investors with the ability to deploy capital globally can simply benefit from more "shots on goal" as their opportunity set to deploy capital widens.

Exhibit 1
Estimated Share of Global Investible Universe



Sources: Data set from 1993–2019, using annual data. Hines Research estimates the size of the investible real estate universe in each country by averaging that country's share of global GDP, as sourced from Oxford Economics, and that country's share of global real estate transaction volume, as sourced from Real Capital Analytics, to estimate each country's share of the real estate universe. By blending the share of global transaction volume with the share of global GDP, Hines Research believes it is able to produce estimates that incorporate where real estate investors are actually allocating funds around the world.

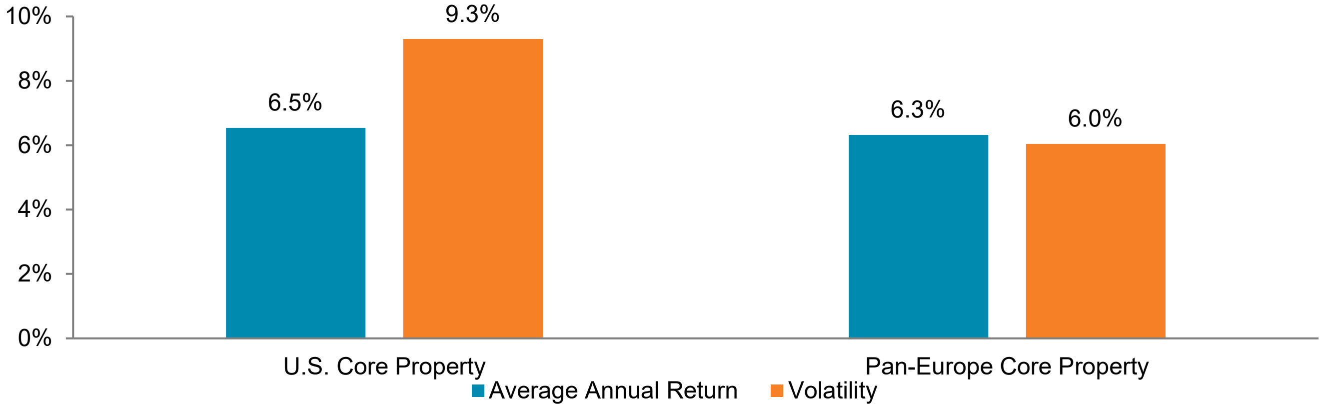
There are a multitude of reasons why international investors continue to target capital to European real estate. Not only is there a stable and transparent institutional and regulatory environment, with European markets often leading the JLL Global Real Estate Transparency Index[1], but the region also offers a consistent and stable return environment.

By observing the average annual returns' performance from MSCI in Exhibit 2, we see this point around stability clearly exhibited. While there is marginal difference in performance between Europe and the U.S., highlighting the former's ability to deliver stable performance, what is notable is the much lower volatility that we find in Europe.

[1] Source: JLL, Global Real Estate Transparency Index Rankings, 2020. Accessed: https://www.jll.co.uk/en/trends-and-insights/research/global-real-estate-transparency-index/greti-global-rankings-and-methodology

Exhibit 2

U.S. and European Core Property Performance

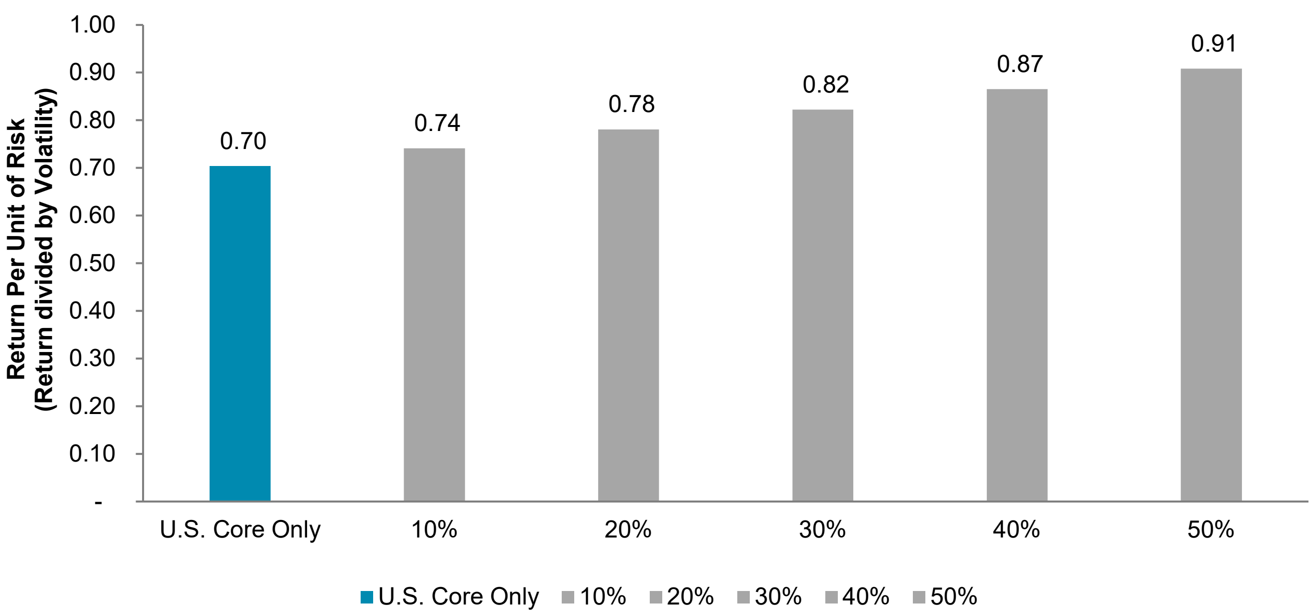


Sources: MSCI, PREA, Hines Research. As of 2021Q1, covering the period since inception of the European Core index used for this analysis. We use property-level returns for the property held by U.S. Core Funds and European Core Funds for this analysis and calculate annualized total return performance over the full period for which data is available. We also calculate volatility for each option shown, but use annual returns (with the 2021 return through 2021Q1). We show the indexed total return performance for the property portfolios held by the funds comprising a representative U.S. and European core fund index.

Additionally, while Europe offers lower volatility, there has been a clear diversification benefit. As per the analysis showed in Exhibit 3, which is an update of the analysis Hines Research undertook in the previous "Why European Core" paper, we computed the amount of return per unit of risk by adding European Core to U.S. Core. While even small allocations provided a boost to the risk-adjusted performance, an allocation of up to 40% to Europe on top of a U.S. allocation, led to a significant 24% improvement (increase in the percentage between the levels) in the risk-adjusted return relative to a pure U.S. Core allocation. An equally weighted 50/50 Europe and U.S. allocation led to a significant 30% improvement in risk-adjusted return.

Exhibit 3

Risk-Adjusted Returns Including a Percentage of Unadjusted European Core

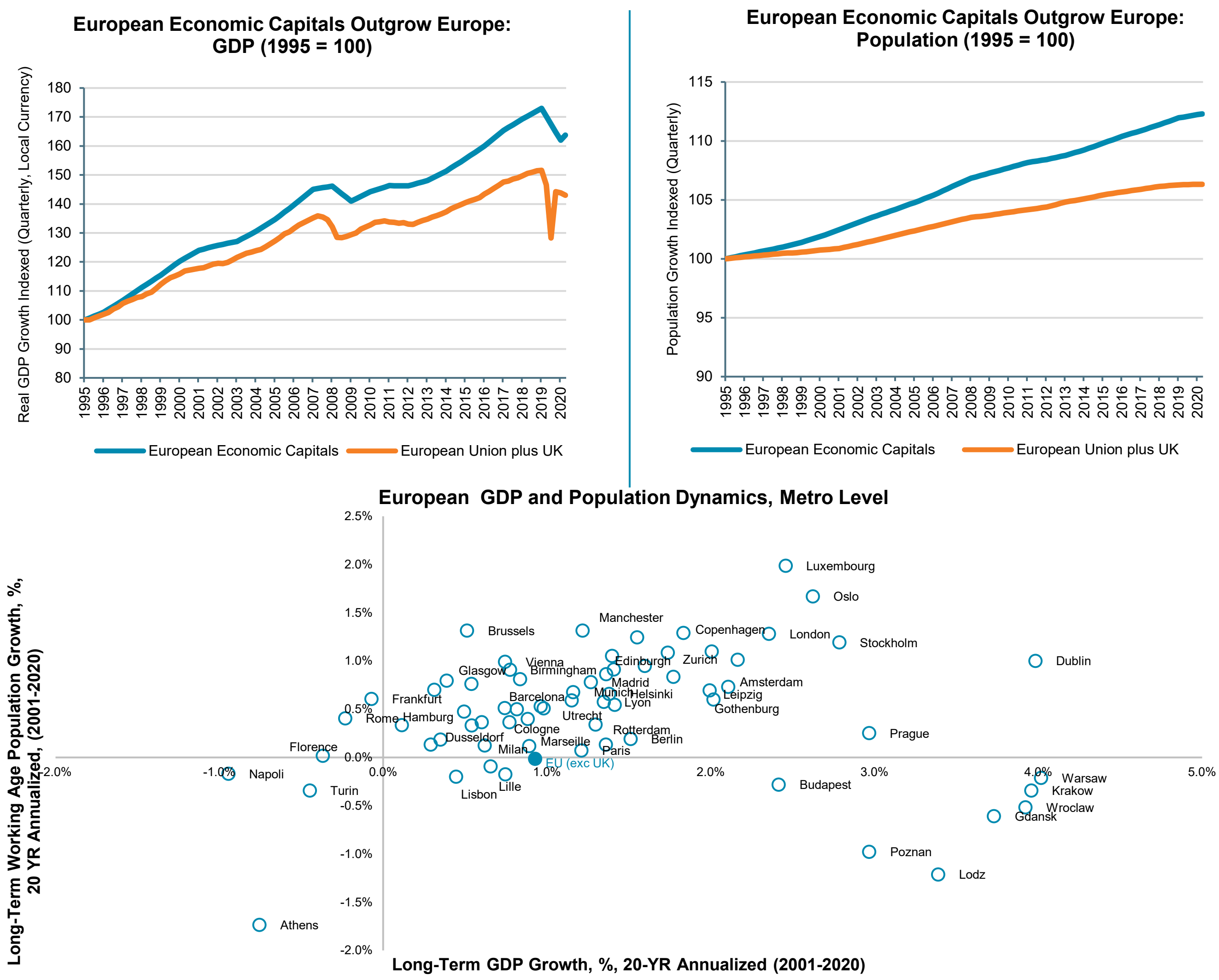


Sources: MSCI, PREA, Hines Research. As of 2021Q1, covering the period since inception of the European Core index used for this analysis. Using the three indices and property-level performance statistics shown in previous exhibits, we start with the U.S. Core property portfolio performance and then calculate risk-adjusted returns (annualized total return divided by volatility) for a series of portfolios which add the unadjusted European Core property portfolios at the differing levels shown. Past performance cannot guarantee future results.

Additionally, many investors may shy away from Europe on the assumption that the European Union or Eurozone region overall is one that is characterized by low to even negative GDP and population growth, translating into a weak return environment.

Hines Research views this as a mistake for a few reasons. Firstly, Europe is not monolithic. It comprises multiple nations with differing cultural, institutional, social, economic, political and regulatory norms and values, leading to a diverse and heterogeneous environment. This gives rise to variation in economic performance amongst countries, with some countries performing better over the long term than others. Secondly, we invest in cities and not regions, with urban environments outperforming both in terms of GDP growth and working age population over the long term as observed in Exhibit 4. But there is widespread dispersion between metros in terms of economic performance with often Northern European economies generally outperforming their southern counterparts.

Exhibit 4
Risk-Adjusted Returns by GPD and Population[2]



Sources: Oxford Economics, Hines Research. As of 2021Q3.

[2] The ‘European Economic Capitals’ used in this analysis are: Amsterdam, Barcelona, Berlin, Brussels, Budapest, Cologne, Copenhagen, Dublin, Dusseldorf, Edinburgh, Frankfurt, Glasgow, Hamburg, Helsinki, Lisbon, London, Luxembourg, Madrid, Manchester, Milan, Munich, Paris, Prague, Rome, Stockholm, Stuttgart, Vienna, Warsaw

This heterogeneity is a relative strength of the European market, enabling investors to have more "shots on goal" and the potential to pick winners at different points in the cycle, creating a constant opportunity spectrum. The European real estate market is characterized by a persistence of ageing stock while the pipeline of new supply is broadly moderate across the region, barring pockets of potential oversupply.

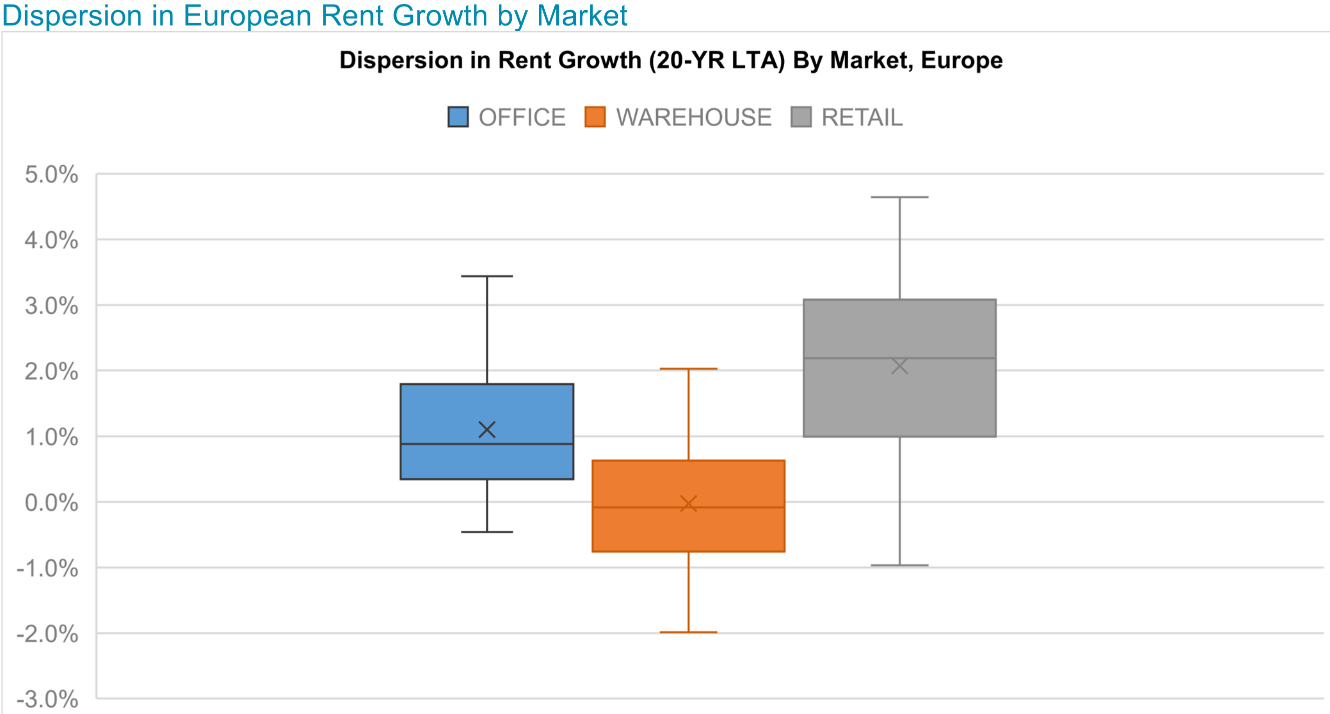
This variance in fundamentals, both in terms of demand drivers and supply across the European landscape, means it is imperative to understand the nuances across sectors and countries by leveraging not only top-down macro insights but also the bottom-up boots on the ground perspective to fully understand and invest in a fiduciary way.

Despite high levels of transparency and stability, the heterogeneity within the region can give rise to informational asymmetries and imperfect information in some places, with some markets more opaque than others. These challenges can well be transformed into opportunity. Truly local investors and operators with access to information, and in-depth local expertise and networks, understand the intricacies of individual country markets. Even at the metro level, they can achieve a level outperformance than others may not.

There are widespread differences in the prospects of markets to generate rent growth over the long-term. As such, this lends further support to the importance of market selection in identifying those markets which have the potential to generate long-term performance. But in order to achieve this, the importance of having a local presence to add alpha cannot be overstated.

Exhibit 5

Dispersion in European Rent Growth by Market



Sources: PMA, Hines Research. As of 2021Q1; by 20-year LTA.

Proactive Market Selection

Additionally, the European region appears to offer a plethora of opportunity, with more potential to generate similar levels of alpha through market selection at the metro level than would otherwise be found in the top U.S. markets – plus the potential bonus of stability and diversification benefits.

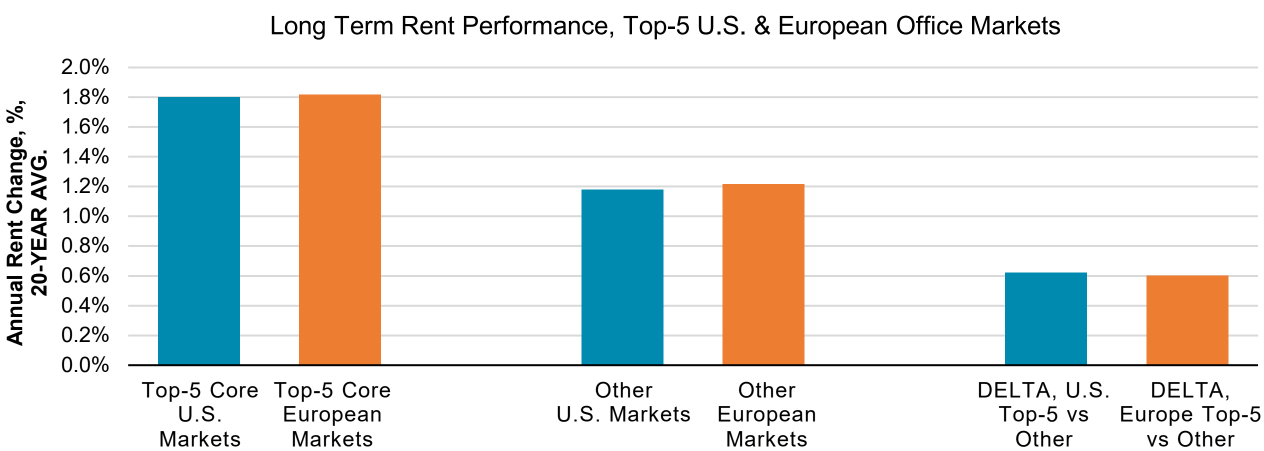
The "core" gateway type winning markets in Europe, i.e., those markets that have generally demonstrated long-term cashflow outperformance[3], have generated similar performance to the strongest U.S. comparable markets – and have also seen outperformance versus non-"core" markets within Europe.

Exhibit 6 highlights this point. Comparing the long-term performance over a 20-year period, we can see how the top-5 European core markets have performed in terms of office rent growth vis a vis a U.S. peer set.

We selected London, Paris, Amsterdam, Munich and Stockholm as the top-5 European core markets for this analysis. On the other side of the Atlantic, major markets such as New York, Los Angeles, San Francisco, Boston and Washington were selected as the top-5 U.S. core markets.

Over the long term, both top-5 buckets have displayed solid rent performance, with both the U.S. top-5 and European top-5 markets averaging around 1.8% per annum and outperforming the average of the other markets in their respective regions by about 60 basis points.

Exhibit 6
Long Term Rent Performance



Sources: PMA, CoStar, NCREIF, Hines Research. As of 2021Q1. Calculated as a straight average of annual average rent growth of the "Top-5" core markets in the U.S. and Europe and contrasted to the averages of the remaining markets within each geography over varying intervals (5, 10 and 20 years). For the U.S. markets, New York, San Francisco, LA, Washington and Boston were selected. For Europe, London, Paris, Munich, Amsterdam and Stockholm were selected.

[3] Hines Research worked closely with the European core fund team to develop a quantitative approach to identifying core cities in Europe across property sectors, which were used to define the core opportunity across Europe. To develop the scores for European property, we started by identifying our key performance measure for both the Office and High Street Retail sector. At the time of developing these scores (2018), we were already expecting that cap rates were likely to be broadly flat moving forward beyond the medium-term, and this still holds true even if we may see some modest yield compression over a 3–5-year horizon. As such we hold the view that real rent growth will be the defining measure of whether a market can generate capital appreciation and thus attractive total returns, both on an absolute and relative basis (versus peers), over the long term. We then identified several economic and demographic factors that closely correlated to long-term rent performance. These core scores form the bedrock in terms of market selection and identifying target cities for core investment. These factors differed slightly across the property sectors, but they generally favoured cities with a leading role as an economic capital for their respective countries, strong employment growth in high value-add sectors, healthy growth in disposable income – reflective of wealth creation and spending power – and a growing population of younger, educated and skilled workers (i.e., "Human Capital") while supply growth was also included in the office core score metric. Past performance does not guarantee future results.

As we have already demonstrated, there is a clear case for adding European Core. It is a market that has generated not too dissimilar levels of performance to U.S. core markets at much lower levels of volatility so there have been clear diversification benefits of adding European core allocations. And investors should not fret at the prospect of economic underperformance with metro level performance having far exceeded the European region average. Concurrently, the top-performing European office markets have seen rent growth broadly in line with that of the top-performing U.S. markets, suggesting that diligent market selection may also support return outperformance over the long term.

Fixing the Mix

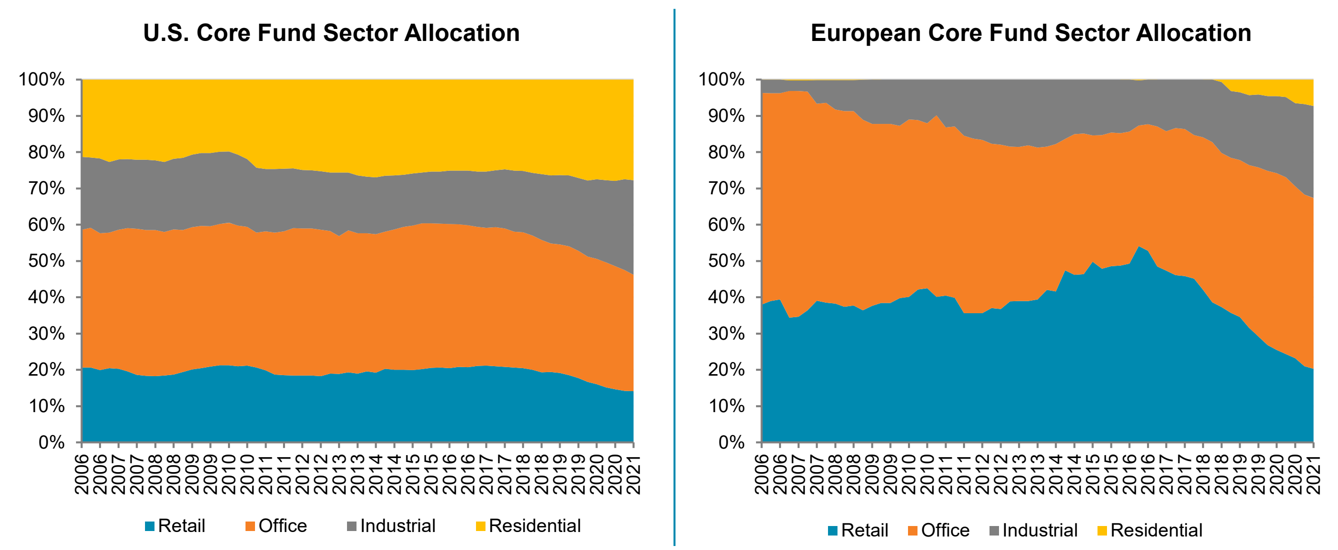
There is an additional path at the sectoral level to boost performance in Europe.

The allocation landscape today is quite different across both the European and U.S. markets. In the U.S., the sectoral mix is much more balanced with a greater weight of allocation towards the stable and return-accretive residential and logistics segments, while the relatively underperforming retail sector has long been at a much lower level of allocation than in Europe. This higher relative allocation in Europe has been a drag on performance.

Nonetheless, the relative allocation to retail real estate in Europe amongst core vehicles has been trending considerably lower while the allocation to logistics and residential, two sectors undergoing positive structural shifts, has been on an upwards march.

Exhibit 7

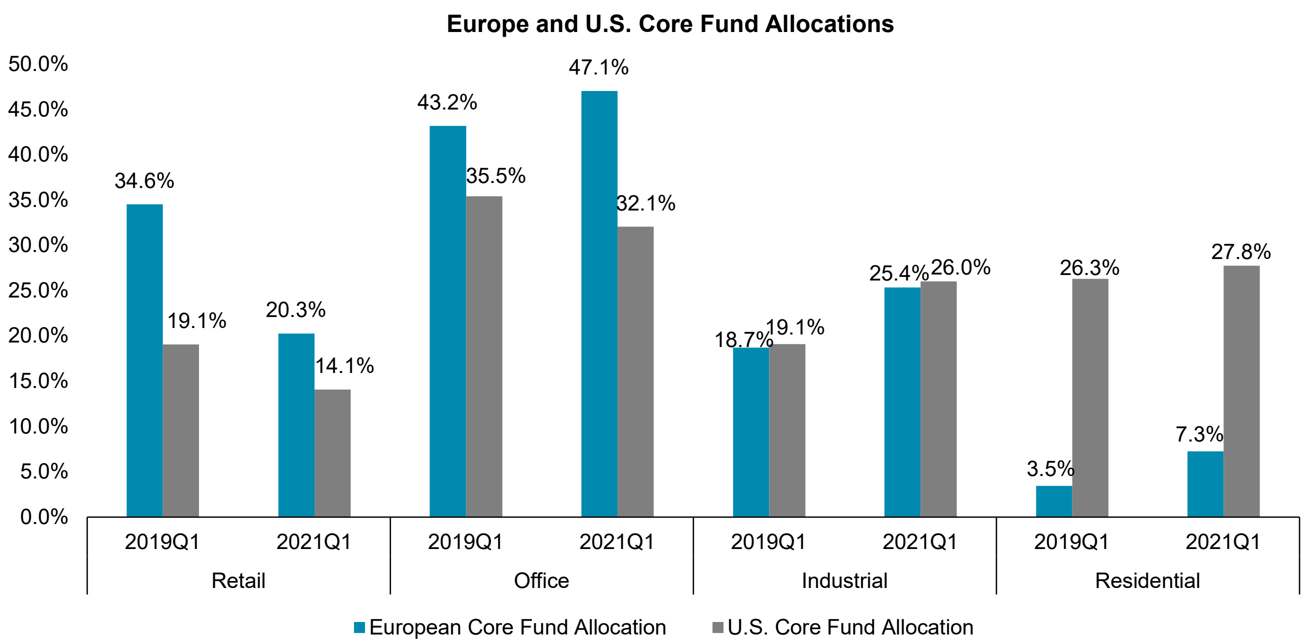
Fund Sector Allocation by Geography



Sources: NCREIF, MSCI, Hines Research. As of 2021Q1, covering the period over which data is available for European Core Funds. For Europe, we use MSCI's Pan-European Property Fund Index, using only the Balanced Funds, as a source for the weights. For the U.S., we use a representative index of U.S. open-ended, diversified core property funds called the NCREIF Fund Index – Open-End Diversified Core Equity (NFI-ODCE).

Since our last update, as we see in Exhibit 8, we have seen a marked increase in allocations towards logistics in both the U.S. and Europe while the share of residential has also doubled in the space of two years. Retail allocations have come down considerably, from almost 35% to around 20% today in Europe. Nevertheless, the share of office allocation has increased by four percentage points to around 47% in Europe today. But the general thrust of increasing allocation towards residential and logistics, as Hines Research anticipated when previously suggesting that European core funds would need to undertake to support performance, is well underway. Both segments in Europe comprise around 33% of the overall portfolio mix whereas this was roughly 28% two years ago and less than 13% five years ago. While this trend of increased allocation to residential and logistics is welcome in Europe, and accretive to performance, it remains well below the approximately 54% combined allocation to these favored sectors in the U.S.

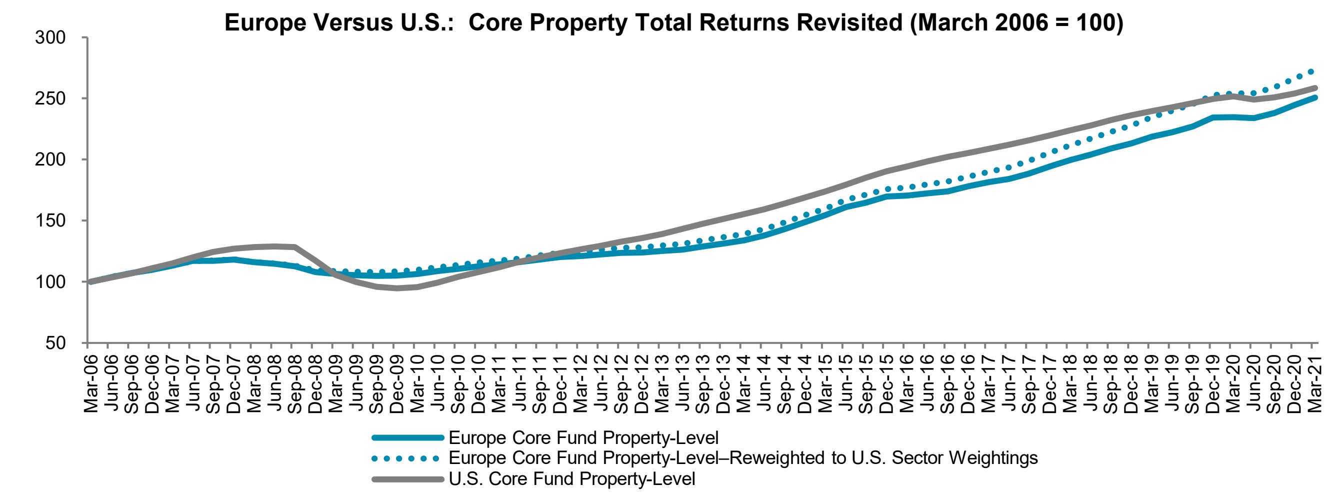
Exhibit 8
Core Fund Allocations by Geography



Sources: NCREIF, MSCI, Hines Research. As of 2021Q1. For Europe, we use MSCI's Pan-European Property Fund Index, using only theBalanced Funds, as a source for the weights. For the U.S., we use a representative index of U.S. open-ended,diversified core property funds called the NCREIF Fund Index – Open-End Diversified Core Equity (NFI-ODCE).

Had European core funds incorporated a relatively more balanced mix with a greater tilt towards logistics and residential from the outset, in line with U.S. sector weightings, then performance in fact would have been boosted further, as can be observed by the blue dotted line in Exhibit 9.

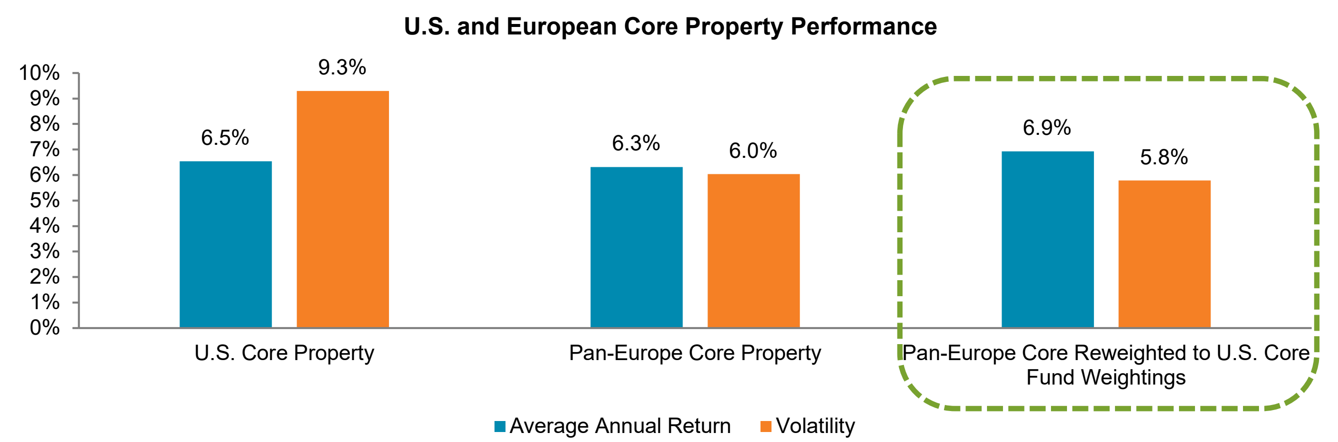
Exhibit 9
Core Property Total Return Index



Sources: MSCI, PREA, Hines Research. As of 2021Q1, covering the period since inception of the European Core index used for this analysis. We use property-level returns for the property held by U.S. Core Funds and European Core Funds for this analysis. We show the indexed total return performance for the property portfolios held by the funds comprising a representative U.S. and European core fund index. Then we calculate how the European fund index would have performed if invested per US core fund allocations. To ensure that the performance calculation methodology is consistent, we use MSCI indices for both options. For Europe, we use the Balanced Funds comprising MSCI's Pan-European Property Fund Index. For the U.S., we use the MSCI/PREA U.S. ACOE Quarterly Property Fund Index, which is managed by MSCI but produced in conjunction with the Pension Real Estate Association (PREA).

In Exhibit 10, the data displays the reweighted performance for Europe. By adding comparable amounts of logistics and residential sectors the performance has improved and volatility stabilized.

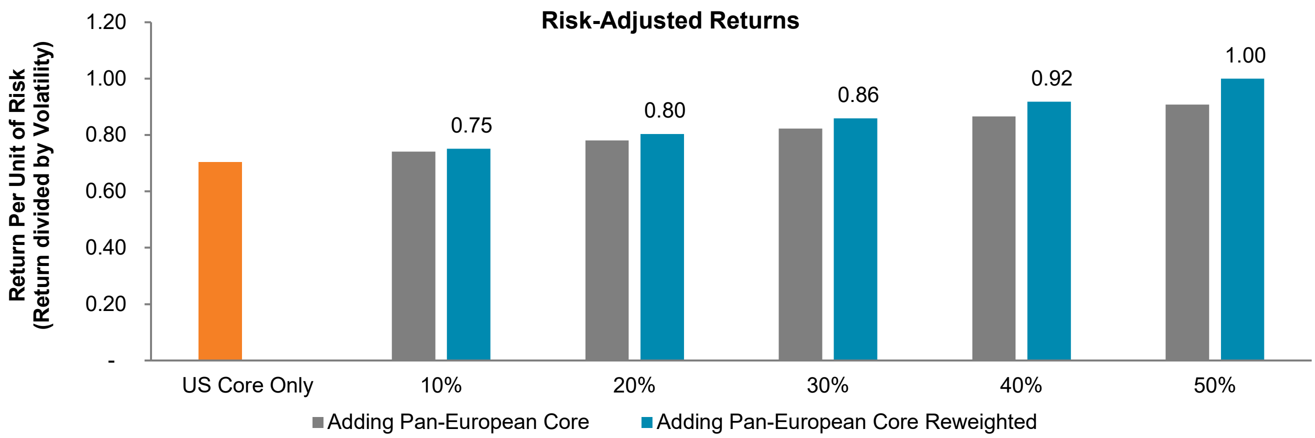
Exhibit 10
Weighted Core Property Performance



Sources: MSCI, PREA, Hines Research. As of 2021Q1, covering the period since inception of the European Core index used for this analysis. We use property-level returns for the property held by U.S. Core Funds and European Core Funds for this analysis and calculate annualized total return performance over the full period for which data is available. We also calculate volatility for each option shown, but use annual returns (with the 2021 return through 2021Q1). We show the indexed total return performance for the property portfolios held by the funds comprising a representative U.S. and European core fund index. Then we calculate how the European fund index would have performed if invested per U.S. core fund allocations. To ensure that performance calculation methodology is consistent, we use MSCI indices for both options. For Europe, we use the Balanced Funds comprising MSCI's Pan-European Property Fund Index. For the U.S., we use the MSCI/PREA U.S. ACOE Quarterly Property Fund Index, which is managed by MSCI but produced in conjunction with the Pension Real Estate Association (PREA). Past performance cannot guarantee future results.

We have already shown that the risk-adjusted return performance of a portfolio increased even if an investor incorporated a traditionally balanced European property allocation given lower volatility. A reweighted portfolio mix with a higher proportion of logistics and residential would be even more accretive to risk-adjusted performance, with a 50% allocation to Europe generating a 42% improvement on a non-diversified U.S. only allocation as observed in Exhibit 11.

Exhibit 11
Risk-Adjusted Returns with Pan-European Core Reweighted

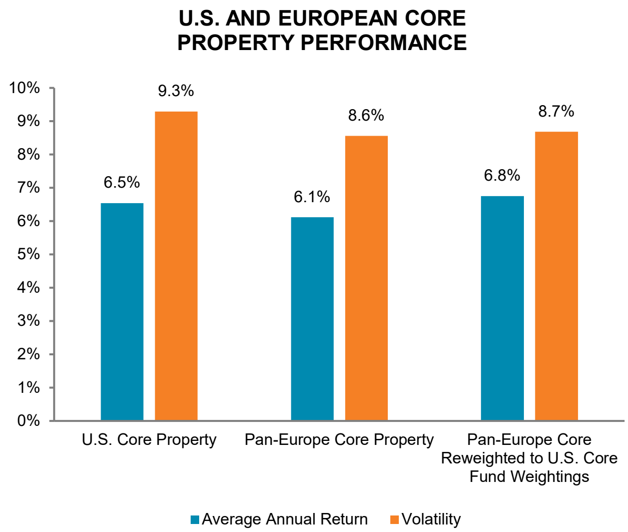


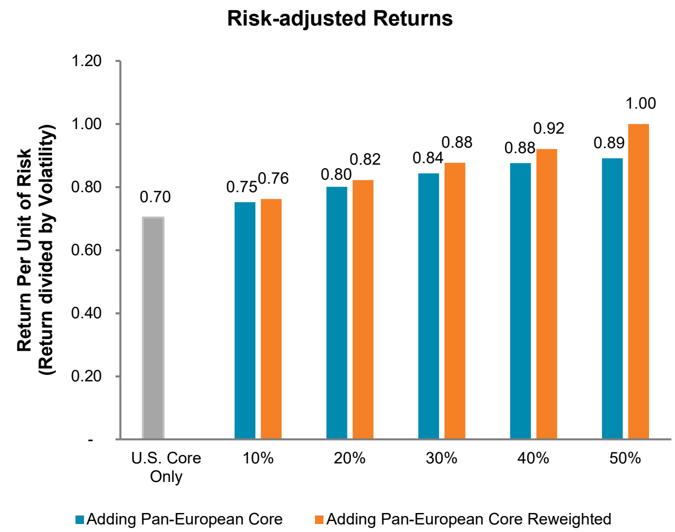
Sources: MSCI, PREA, Hines Research. As of 2021Q1, covering the period since inception of the European Core index used for this analysis. Using the three indices and property-level performance statistics shown in previous exhibits, we start with the US Core property portfolio performance and then calculate risk-adjusted returns (annualized total return divided by volatility) for a series of portfolios which add the unadjusted as well as adjusted European Core property portfolios at the differing levels shown. Past performance cannot guarantee future results.

We also looked at performance based on U.S. Dollar (USD) returns in Exhibit 12. While returns have been marginally lower on this currency-adjusted basis, volatility was also lower than for U.S. core property.

Additionally, re-balancing the mix to U.S. core added 30 basis points of performance to European core above what U.S. core property would offer with lower volatility. However, we do note that volatility for a “mix fixed” pan-Europe core portfolio is higher on a USD currency-adjusted basis than under a Euro (EUR) basis, driven largely in part by the industrial sector’s performance volatility early on under USD. The benefits of diversification remain even on USD basis and especially more so when sectors are re-balanced on a European portfolio.

Exhibit 12
Returns by USD

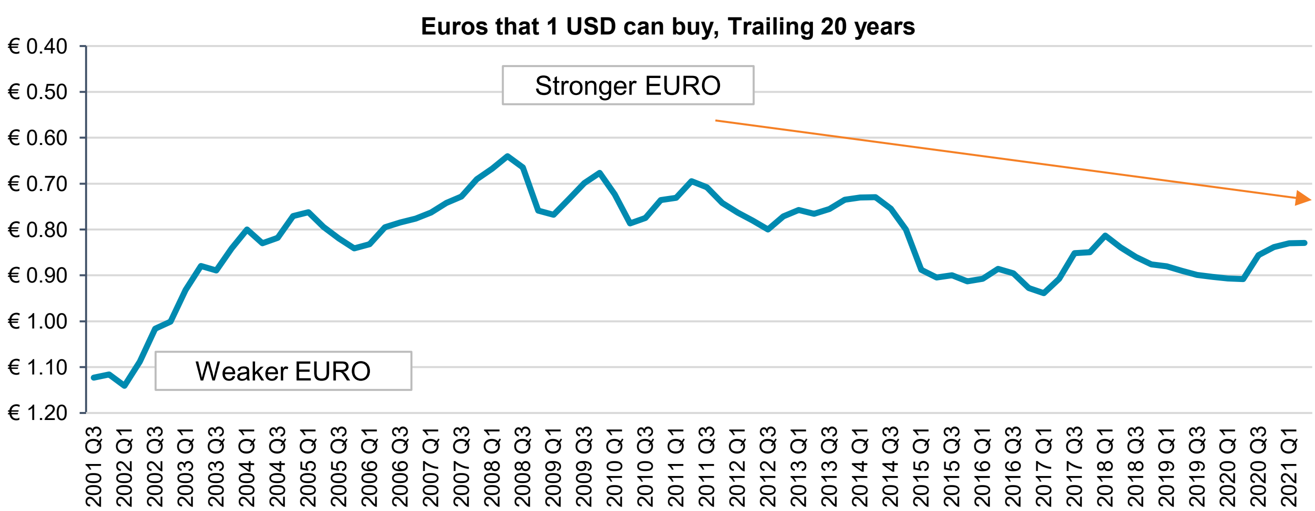




Sources: MSCI, PREA, Hines Research. As of 2021Q1, covering the period since inception of the European Core index used for this analysis. We use property-level returns in USD for the property held by U.S. Core Funds and European Core Funds for this analysis and calculate annualized total return performance over the full period for which data is available. We also calculate volatility for each option shown, but use annual returns (with the 2021 return through 2021Q1). We show the indexed total return performance for the property portfolios held by the funds comprising a representative U.S. and European core fund index. Then we calculate how the European fund index would have performed if invested per U.S. core fund allocations. To ensure that performance calculation methodology is consistent, we use MSCI indices for both options. For Europe, we use the Balanced Funds comprising MSCI's Pan-European Property Fund Index. For the U.S., we use the MSCI/PREA U.S. ACOE Quarterly Property Fund Index, which is managed by MSCI but produced in conjunction with the Pension Real Estate Association (PREA). Using the three indices and property-level performance statistics in USD shown in the previous exhibit, we start with the U.S. Core property portfolio performance and then calculate risk-adjusted returns (annualized total return divided by volatility) for a series of portfolios which add the unadjusted as well as adjusted European Core property portfolios at the differing levels shown. Past performance cannot guarantee future results.

Another consideration to make is that the EUR now looks undervalued relative to USD so there may be a higher probability of EUR moving up or staying flat on a relative basis, which should have a benign to positive impact. The EUR has been weakening since the Global Financial Crisis (GFC) but more recently has edged higher.

Exhibit 13
EUR Valuation Related to USD



Source: Oxford Economics, Hines Research. As of 2021Q1.

Much of the additive benefits of allocating to Europe are derived from adding European residential. The sector has been stable and consistent through cycles, with much less dispersion than in the commercial segments, as shown in Exhibit 14.

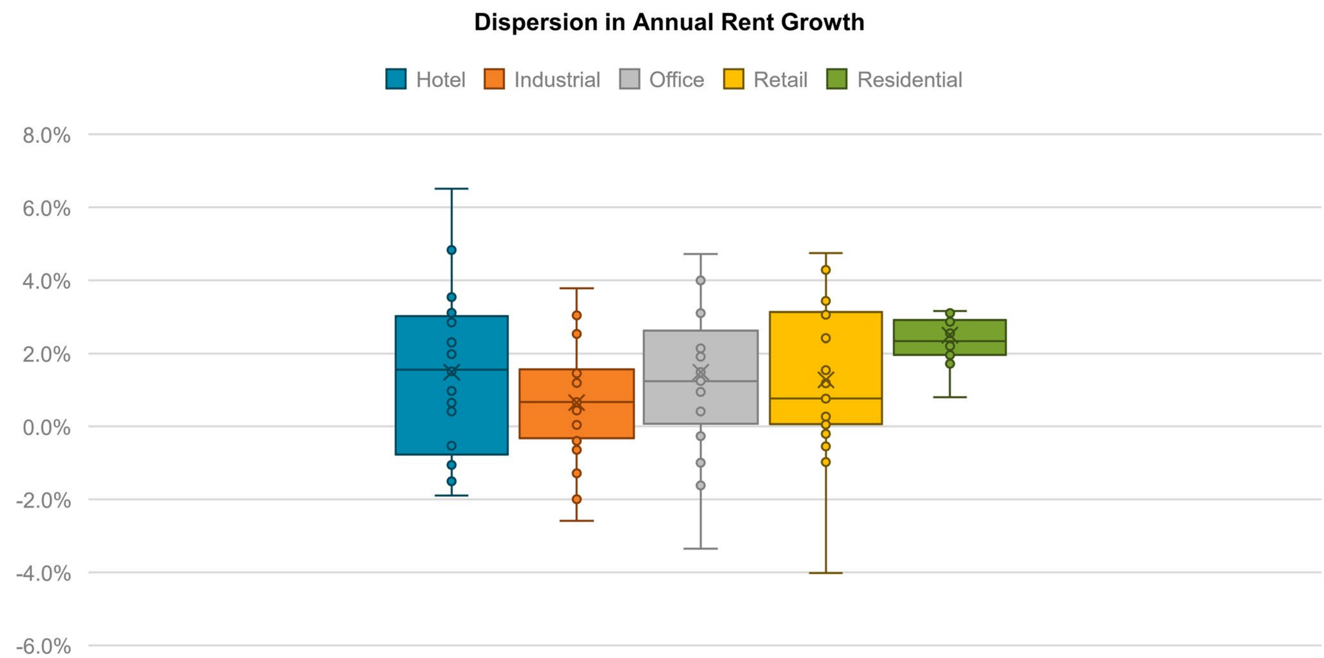
Since the GFC, retail rental performance has stagnated, as well as sliding downward, with negative rental performance accentuated since the onset of the COVID-19 pandemic.

The industrial and logistics sector in Europe has lagged the U.S. but over the last few years has seen an acceleration in performance, with the former benefitting from the dual drivers of e-commerce driven growth as well as a cyclical recovery following the Eurozone crisis of 2012.

Since the start of COVID-19, the acceleration in e-commerce growth has underpinned robust tenant demand which in turn has placed downward pressure on availability of logistics space, in turn supporting further rental growth in the sector.

Office rental growth has also lagged, but the broadening of the economic recovery since the end of the double-dip recession in 2012 has helped performance. Per the MSCI data, performance has been stable on average across Europe, but this does mask market by market performance.

Exhibit 14
Dispersion in Annual Rent Growth



Sources: MSCI, Hines Research. As of 2020Q4, using annual data since 1998 for which data is available for the property types shown. We use the MSCI Europe Annual Property Index in EURO for this analysis, and filter to include only same-store results. The rent data was only available for the full period in a representative group of markets: France, Germany, the Netherlands, Sweden and the UK.

Performance Through the Pandemic

Economic cycles matter. And while the uniqueness of the black swan event of a global pandemic is unprecedented in many ways, the real estate impact generally follows a well-trodden path.

What is perhaps different this time around is the prospect of another sector, office, now potentially being added to the mix of segments undergoing structural change.

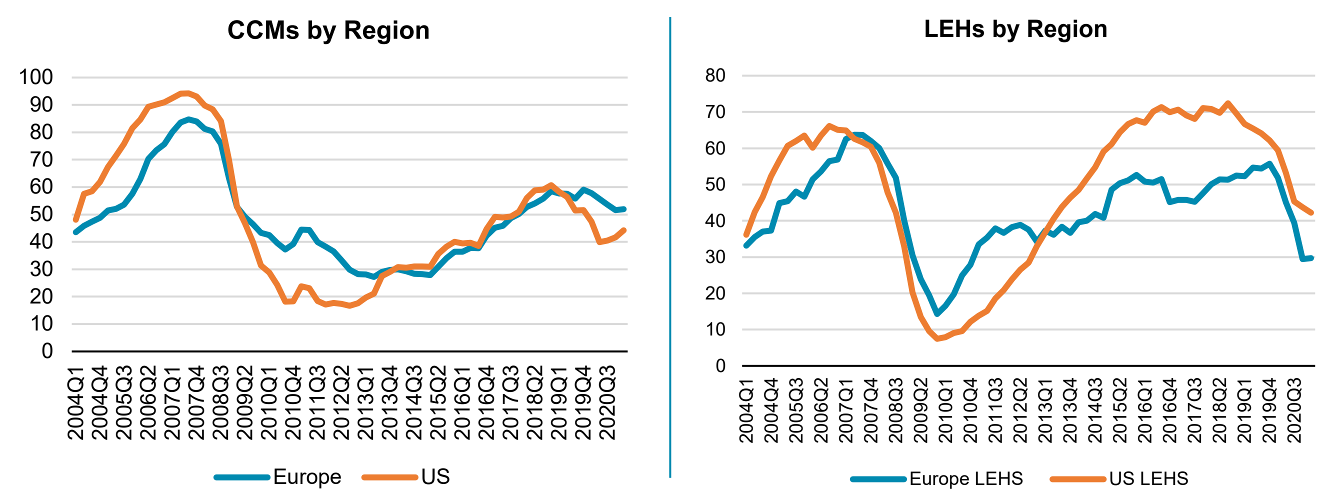
Before we come onto a sector-by-sector discussion, we can see the impact on pricing and fundamentals at a regional level in Exhibit 15.

Our proprietary Composite Capital Markets Score (CCMS)[4] measure shows that pricing overall has softened across both regions with greater falls having initially been sustained in the U.S. markets, albeit more recently, prices have started to recover.

What is perhaps somewhat surprising is that there does seem to be a detachment between the pricing environment and fundamentals, especially in the European markets. Despite widespread government support, property market conditions have deteriorated substantially, with the average Leasing Environment Health Score (LEHS), our indicator of market fundamental health, aggregated for the three main commercial sectors, markedly down since the first quarter of 2020, with extremely challenging retail conditions weighing on the LEHS score for Europe.[5]

Exhibit 15

Composite Capital Markets Score and Leasing Environment Health Score



Sources: CoStar, NCREIF, PMA, CBRE, JLL, Oxford Economics, Hines Research. As of 2021Q1. The Composite Capital Market Score ("CCMS") is an aggregate score based on five proprietary factors utilized in 5-year forward price forecasts produced by Hines Research for the markets under coverage. The CCMS is calculated as a percentile relative to each market's own history. The LEHS is a similar score but using fundamentals measures.

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4 In short, the CCMS is a composite score of five key factors that we find to determine future price growth. The CCMS offers guidance on whether a market is cheap or expensive. Our proprietary view finds that the initial pricing environment, whether prices are cheap or expensive relative to its own history, is a major factor in determining future price movement but other factors such as cap rate spread, rent expectations and trailing value growth and total returns also feed in to the CCMS score. These scores have been back tested and have been shown to be quite a relevant predictor of future price signals and form the methodological bedrock of our five-year price forecasts.

5 The LEHS is simply a composite of three market fundamental indicators: vacancy rate, trailing annual rent growth and trailing annual demand growth. Alone, each of these factors can be somewhat noisy from quarter to quarter, but in composite, they provide a good sense of the market's cycle. To combine them, each of these factors is converted to a percentile score relative to each market's history such that higher scores indicate stronger fundamentals. Once they are on the same scale, they are then averaged to create the LEHS with higher values indicating stronger fundamentals.

When breaking out sector performance within each region based on the CCMS measure, the divergence in pricing between the major real estate sectors becomes rather apparent.

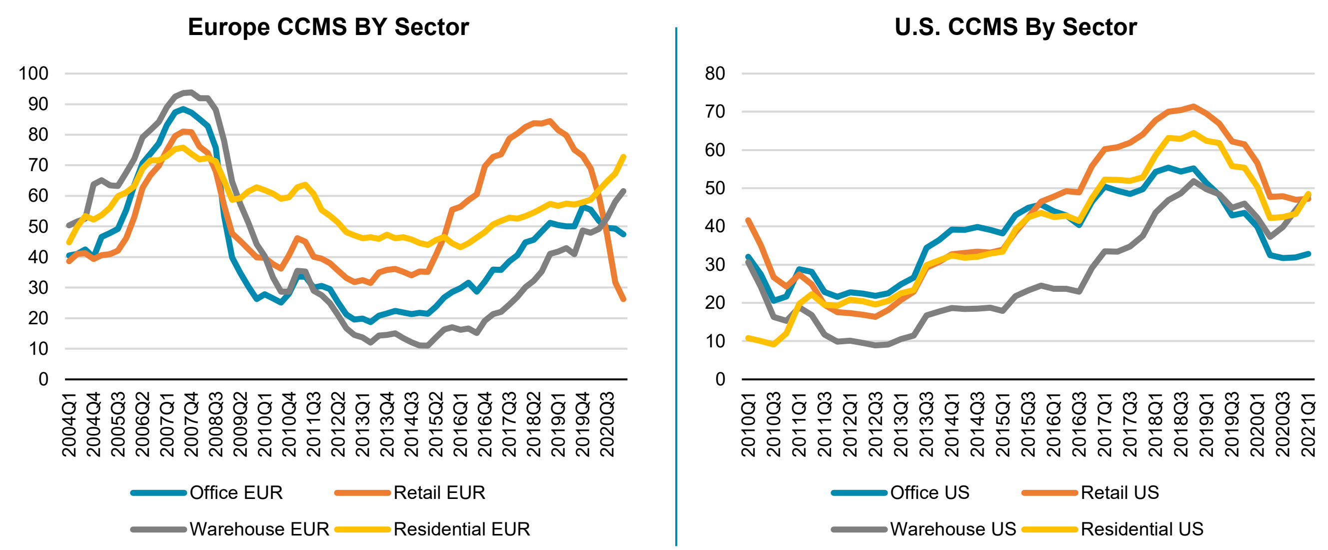
On one hand, continued investor interest has resulted in pricing increases in Europe for the in vogue residential and logistics segments relative to the retail sector (with the data here pertinent to High Street Retail) where prices have continued to trend lower – a trend that was already well underway prior to COVID-19 but since accelerated as the structural impact of now faster e-commerce adoption has put further strain on physical store-based retail.

But this is not a uniform story – indeed while logistics pricing has increased in the U.S., increases have been at a much more moderated pace, while declines in U.S. retail have been less dramatic than in Europe.

On offices, pricing on average in Europe has been flat, albeit some markets have seen falls in prices. In contrast, the downward adjustment in prices has been more pronounced in the U.S. office segment.

In later sections, we will dive deeper into the implications for the market outlook by sector of the current pricing environment. In summary though, the pandemic has resulted in adjustments to pricing in some sectors while we have seen continued investor flows to residential and logistics which remain atop many investors' wish lists today.

Exhibit 16
Geographical Composite Capital Markets Score by Sector

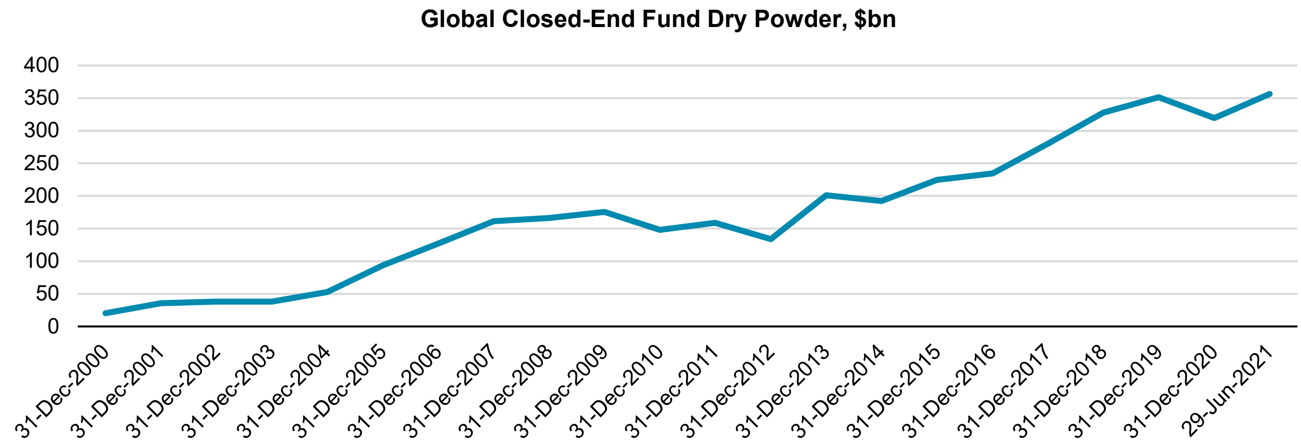


Sources: CoStar, NCREIF, PMA, CBRE, JLL, Oxford Economics, Hines Research. As of 2021Q1. The Composite Capital Market Score ("CCMS") is an aggregate score based on five proprietary factors utilized in 5-year forward price forecasts produced by Hines Research for the markets under coverage. The CCMS is calculated as a percentile relative to each market's own history.

Capital Flows to Core

The conditions for continued investment activity in real estate appear ripe. Real estate funds sit on a substantial pile of uninvested dry powder, with new fundraising momentum robust while institutional investors remain under-allocated to real estate. This is likely to underpin continued inflows to the asset class which could sustain pricing particularly in the residential and logistics segments for quite some time.

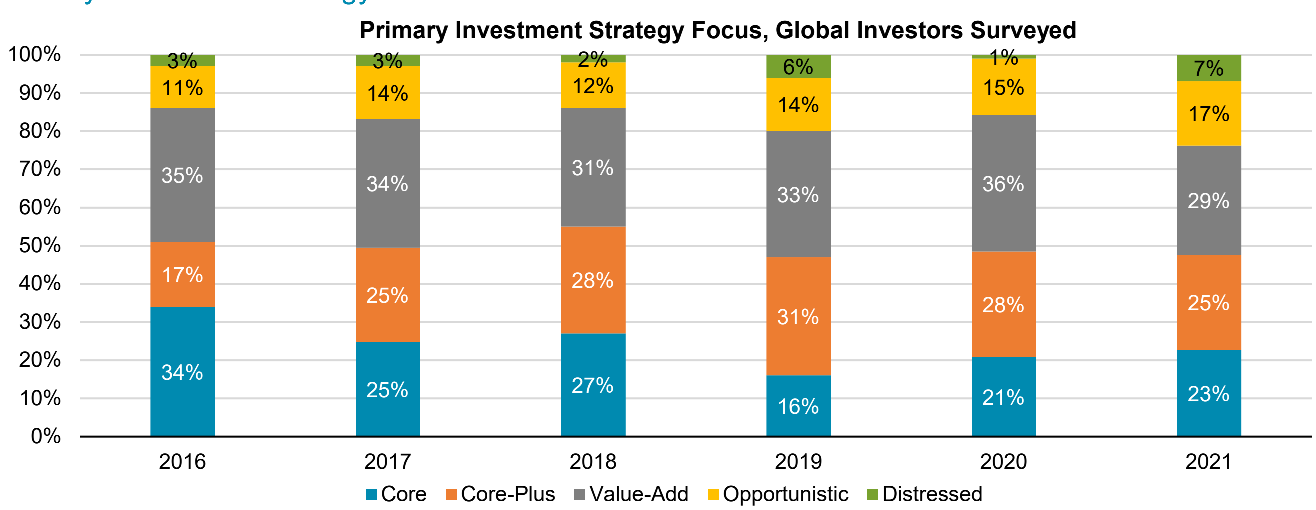
Exhibit 17
Dry Powder for Global Closed-End Funds



Sources: Preqin, Hines Research. As of 2021Q1.

And while the overall landscape is one characterized by increased capital flowing to real estate more broadly, we think there are good reasons to expect a rising share of investment flowing to European core (and core-plus) strategies. According to a recent survey conducted by the Pensions Real Estate Association, around half of the investors have consistently suggested that core and core-plus investment will be their key strategy focus.

Exhibit 18
Primary Investment Strategy Focus for Global Investors



Sources: Pensions Real Estate Association (PREA), Hines Research. As of 2021Q1.

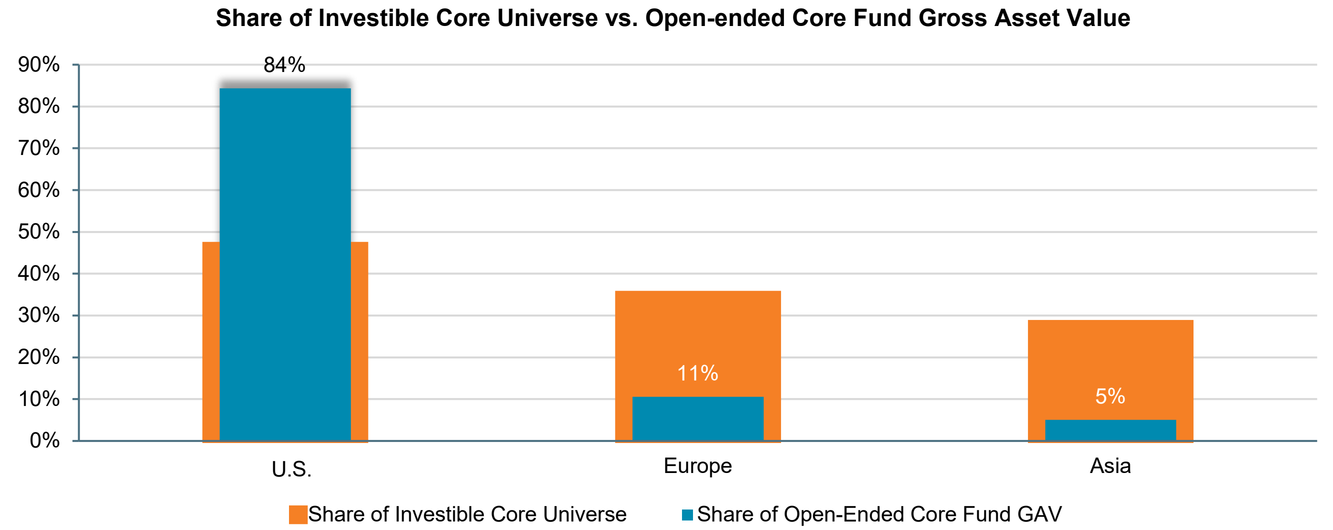
Exhibit 19 is an update of a chart displayed in the previous "Why European Core" paper. In short, it essentially continues to show a major imbalance between the amount of capital held by open-ended funds in Europe *vis a vis* the amount of investible core property stock in Europe.

What is different this time around, is that the share of European open-end core funds of the European core stock universe has increased from 7% since the last iteration of the paper to around 10% – yet the imbalance remains, with core property in Europe still accounting for almost 32% of global core.

This still sits vastly below the share of core property in the U.S. (accounting for just under 45% of the global universe of core stock) held by U.S. core open-end funds which is around 84%.

Exhibit 19

Imbalance in Shares of Investible Core Universe and Open-Ended Core Fund Gross Asset Value



Sources: Oxford Economics, RCA, MSCI/IPD, NCREIF, JLL, IPE, Hines Research. As of 2019Q4. We have used Hines Research proprietary "Core" Scores to estimate the value of Core property in the U.S. We aggregated the estimated value of investible property in all submarkets throughout the U.S. that achieved greater than a score of 70 on this measure. The value of Core property in Europe is an aggregate of the total value in 21 metros that Hines Research has identified as Core based on a proprietary scoring methodology. The value in Asia is the aggregate of target markets, including Melbourne, Sydney, Brisbane, Greater Hong Kong, Greater Singapore, Tokyo, Seoul, and Beijing and Shanghai. We do however apply a ratio for Core vs Non Core from the U.S. research to both the EU and APAC estimates. We have used NCREIF's NFI-ODCE Fund Index as representative of the gross asset value of real estate held U.S. open-ended core equity funds. For Europe, we use the same measure from MSCI/IPD's Pan-European Quarterly Balanced Property Fund Index. The GAV for Pan-Regional Asia Core Funds comes from ANREV, and is quoted in an article published by IPE on March 16, 2020, on its website and was taken from its March/April 2020 issue.

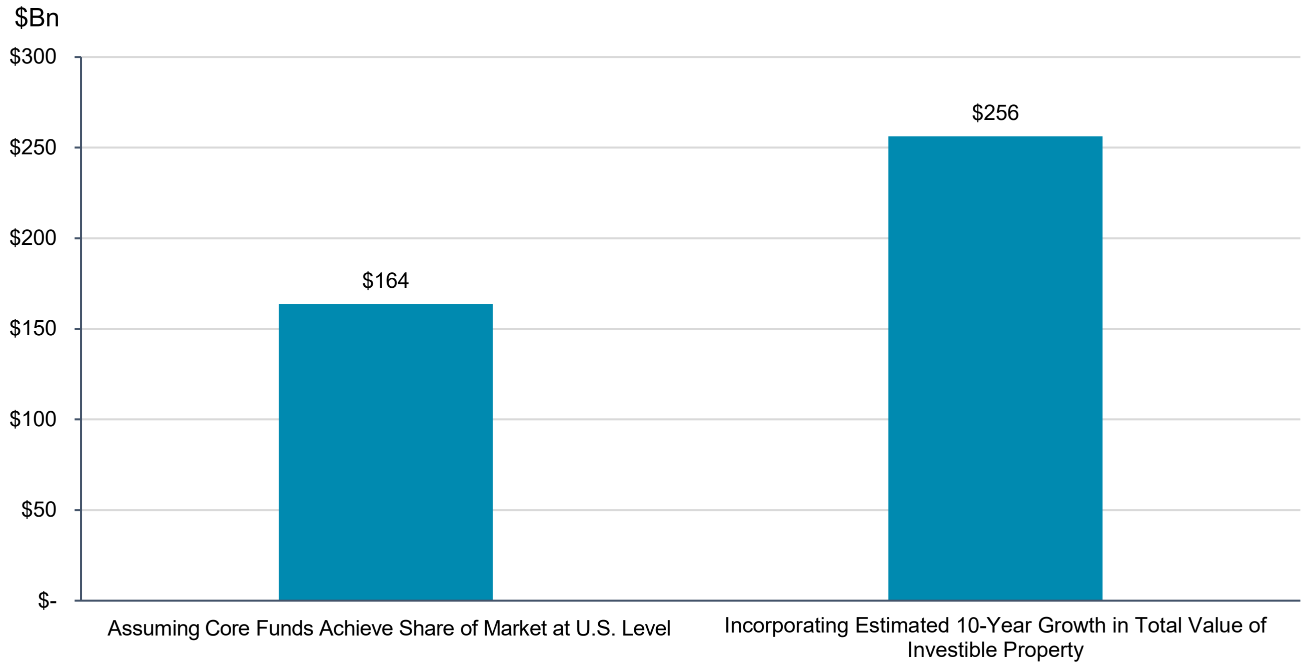
For Hines Research, this imbalance between the share of European open-end funds relative to the size of the European core market remains unjustified.

If we assume that European core funds achieve a similar level of market share of the overall core universe within their own respective markets as that held by the core NFI-ODCE funds, this suggests that European core funds would need to invest circa $164 billion into the segment right now.

Should we factor in estimates of growth in European core over the next ten years, this figure in terms of core fund capital requirement would balloon to $256 billion as observed in Exhibit 20.

To conclude, the factors of rising dry powder, growing institutional allocation to real estate, increased fundraising momentum and the imbalances prevalent in the core European market today point to increasing investment flowing to the European core fund segment.

Exhibit 20
Estimated Gross Asset Value Demand for European Core Property



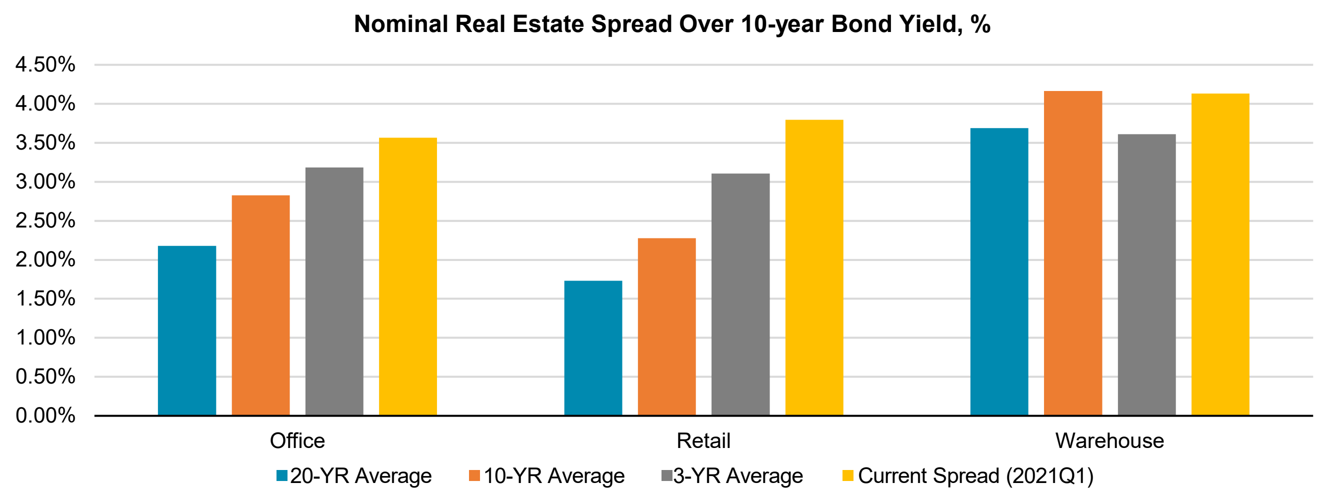
Sources: Oxford Economics, RCA, IPD, NCREIF, JLL, IPE, Hines Research. As of 2019Q4. We have used Hines Research proprietary "Core" Scores to estimate the value of Core property in the U.S. We aggregated the estimated value of investible property in all submarkets throughout the U.S. that achieved greater than a 70 score on this measure. The value of Core property in Europe is an aggregate of the total value in 21 metros that Hines Research has identified as Core based on a proprietary scoring methodology. The value in Asia is the aggregate of target markets, including Melbourne, Sydney, Brisbane, Greater Hong Kong, Greater Singapore, Tokyo, Seoul, and Beijing and Shanghai in China. We do however apply a ratio for Core vs Non Core from the U.S. research to both the EU and APAC estimates. We can estimate the implied "catch-up" demand for Core property in Europe and Asia by assuming the penetration rate for Pan-Regional Open-Ended Core Funds was the same in those regions as in the U.S. The penetration rate for U.S. Core Funds is calculated as the percentage of the overall investible value of Core property in the U.S. (per our estimates) held in U.S. Open-Ended Core Funds (using Gross Asset Value). The growth rates are calculated using Hines Proprietary Research's forecasts for total property value growth for the core cities only.

Thematic Investment Strategies and the Landscape for Investment Across Europe Today

The interest rate environment has remained benign. Nominal cap rate spreads remain as wide as ever above the respective 10-year bond yield in European markets, with substantial headroom for spreads to narrow, even if bond yields were to rise. However, while inflation could rise (albeit most likely a transitory phenomenon), the current accommodative monetary stance and forward guidance to keep base rates low suggests that there is little upside pressure for bond yields to rise substantially in the midterm.

In some sectors, this could well imply prospects for yield compression over the near to midterm, especially as economic conditions normalize. For instance, in Denmark and Germany, the exceptionally low interest rate environment has created highly favorable financing conditions; and although post-pandemic financing has become harder to come by especially at the upper end of the risk-spectrum, in our view financing conditions for higher risk strategies will likely improve in tandem with the anticipated economic recovery.

Exhibit 21
Nominal Real Estate Spread Over 10-Year Bond Yield

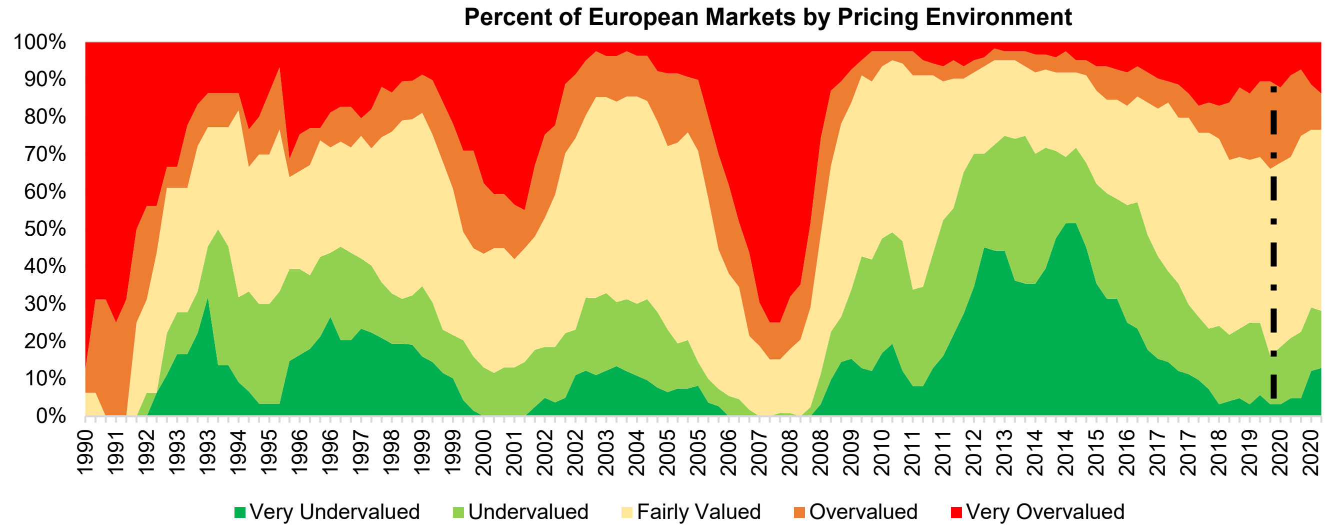


Sources: PMA, CBRE ERIX, Oxford Economics, Hines Research. As of 2021Q1.

There are plentiful opportunities at the market level, albeit perhaps not to the extent the investment community thought may arise in the initial phase of the pandemic. Based on our CCMS measure, following the impact of COVID-19, around 77% of markets in Europe look fair value to inexpensive, as observed in Exhibit 22.

And while prices did not fall much, in our view there remains a sizeable window of opportunity to invest. Further, the Hines network can source a wide range of investment opportunities through having a deep local presence.

Exhibit 22
European Markets by Pricing Environment



Sources: PMA, CBRE, Oxford Economics, Hines Research. As at 2021Q1.

But of course, with significant capital chasing the limited amount of available investment deals, finding relative value has become much harder. In our view, we can maximize value through market selection as we discussed. And through leveraging data insights, we can unearth pockets of value.

Hines Research has several tools within its armory to help investors find relative value. A key plank is our proprietary pricing and fundamental scores, which form the basis of our unique approach to five-year price and rent forecasts.

In short, our proprietary approach identified a relationship between how expensive or cheap a market is relative to its own history (along with other factors such as cap rate spreads, rent growth prospects, and trailing values and returns) and future price movements.

Similarly, we also found a relationship between rents relative to trend as well as leasing environment indicators to future rent movement. We undertake price and rent forecasts across 500 global market and sector combinations which are published every quarter and inform underwriting and tactical market positioning. Our models, maintained by our quantitative analysts, are dynamic, responding to market changes on a quarterly basis.

Beyond our forecasts, we have developed specific tools and analysis, often bespoke, within each different sector to provide further comfort and grounding for our investment thesis.

Sector Deep Dives and Leveraging the Hines Research Toolkit

LOGISTICS

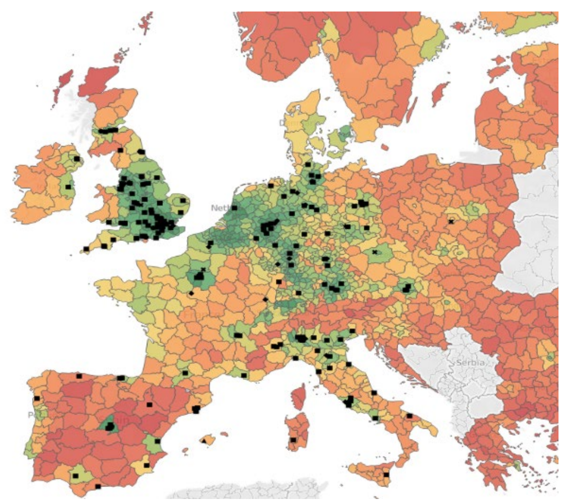
By leveraging the in-house big data skills we have within Hines Research, we undertook drive time analysis as a complement to the logistics core score[6] framework to help unearth markets with prospects for long-term outperformance. We plotted drive times at the NUTS-3[7] level for different product categories with 30 minutes proxied for last mile, 60 minutes for urban, 2 hours for regional and 4.5 hours for national distribution. The map shown here is for Urban 60 minutes which we found to have the strongest relationship with rent growth based on our back-testing undertaken in the U.S.

The “core” markets of the UK, Benelux, Germany, Paris and Copenhagen really stand out — not surprising given the concentration of people and wealth — while we also found plenty of opportunities outside of the major metros. While the major centers of Southern Europe score highly from an urban drive time perspective, and while there are some interesting opportunities beyond the key metros, such as in Northern Italy, investors ought to be selective when investing in these less proven markets. Furthermore, we take comfort from the fact than when we overlaid Amazon locations, we found that they generally correspond to the strongest scoring locations on our drive time measure.

Exhibit 23
Drive Analysis

Amazon Location Type
- ○ Null
- ★ Amazon Air
- ■ Delivery Station
- ✖ Inbound Cross Dock
- ● Prime Now Hub
- ◆ Sortation Center
- ▲ TBD

Percentile Score
0% 100%



Sources: ESRI, MWPVL, Hines Research. As of 2021Q1.

We also undertook analysis to think about logistics markets from a more tactical perspective. Based on research undertaken across the U.S., the UK and parts of Germany, we found that once a market reached around 8–10% online sales, logistics rents really started to accelerate from this point forward in these markets.

[6] We developed an approach to identify factors that corresponded to the long term intrinsic strength of markets **based on their ability to generate positive and consistently growing cash** flow and then scored markets on this basis. This gives us a view on picking out strategic markets which consistently perform over the long-term. For logistics, we identified several factors that we found were important determinants of long-term rent performance (total population within 30km, % of e-commerce online spending, retail spending/SQM logistics stock, shift in disposable income), leading us to develop a Last Mile Score.

[7] Nomenclature of Territorial Units for Statistics-3

And so, those markets that are in the 8–10% online sales penetration inflection territory, could well see an acceleration in their rents in the coming years, ranking highly in terms of their rental acceleration potential. Here, the French markets lead the pack, suggesting we are primed to see real upsides for rent growth going forward. Italian and Spanish markets should play catch-up in the coming years and there are prospects for robust rent growth here as they enter the inflection territory. But forays in these Southern European markets would be opportunistic and tactical as they do not score highly on our traditional core score metric, nor are our current five- year price forecasts wholly favorable, albeit drive times are supportive to some degree.

RESIDENTIAL

We have long focused on the residential sector here in Europe and have developed an approach to think about markets strategically. While demographic challenges pertaining to ageing populations pervade much of Europe, it is not a bleak picture by any yardstick. Urbanization and intra and inter-migration into and within countries towards the major metros continued to be a key driving force of population growth (as well as net births in some instance).

Throughout this decade, several key cities across Europe which sit in a demographic sweet spot are expected to continue to see growth in households and the key “renter” demographic. Led by the Nordics markets, there are also cities such as Amsterdam, Paris, Milan and Madrid, key major markets in Europe, that are also within this bucket. Furthermore, most of the major markets are expected to see continued household growth in Europe.

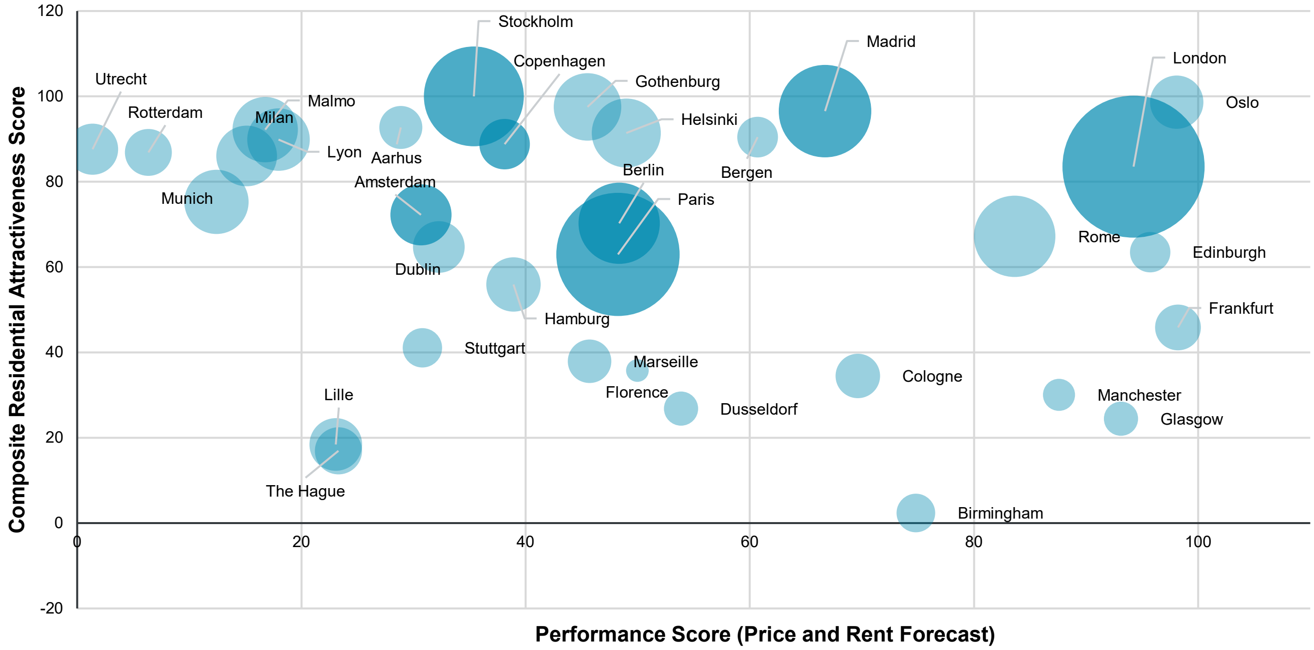
While these demographic factors are important and a major driving force, we also identified factors that are important for long-term real estate performance and help frame our Residential Attractiveness Score (RAS), our core score measure for the sector, which we can then look at over the long-term (20-year basis) and over 5 years (midterm)[8].

While demographics and the core scores point to the long-term fundamental strength of markets, we can also leverage our price and newly constructed rental forecasts in the residential market and combine all these elements to get a sense of market performance, with markets such as London, Madrid, Berlin, Paris and the Nordics all looking relatively strong on a combined basis.

[8] The factors within the residential space generally favor cities with a leading role as an economic capital for their respective countries, that demonstrate strong growth in leisure and employment growth as a market of livability, healthy growth in disposable income – reflective of wealth creation and spending power, as well as increased population density. These were then normalized to generate relative core scores across markets.

Exhibit 24

Composite RAS Score and Performance Outlook



Sources: Oxford Economics, BulwienGesa, Nomisma, Rightmove, Idealista, FRIS/NVM, Daft.ie, Clameur, Newsec, CEIC, CBS NL Statline, Hines Research. As of 2021Q1. Sized based on forecast for cumulative household formations over the next 10 years (2020Q4—2030Q4). We combine the outlook for rents which was scored on a 0-100 basis with a normalised 0-100 score for relative price performance and equally weighted these scores to come up with a performance score on the horizontal axis. This is then contrasted to our residential attractiveness score, our long-term core score metric for the sector along the vertical axis, while the size of the bubble represents total household formation over this decade.

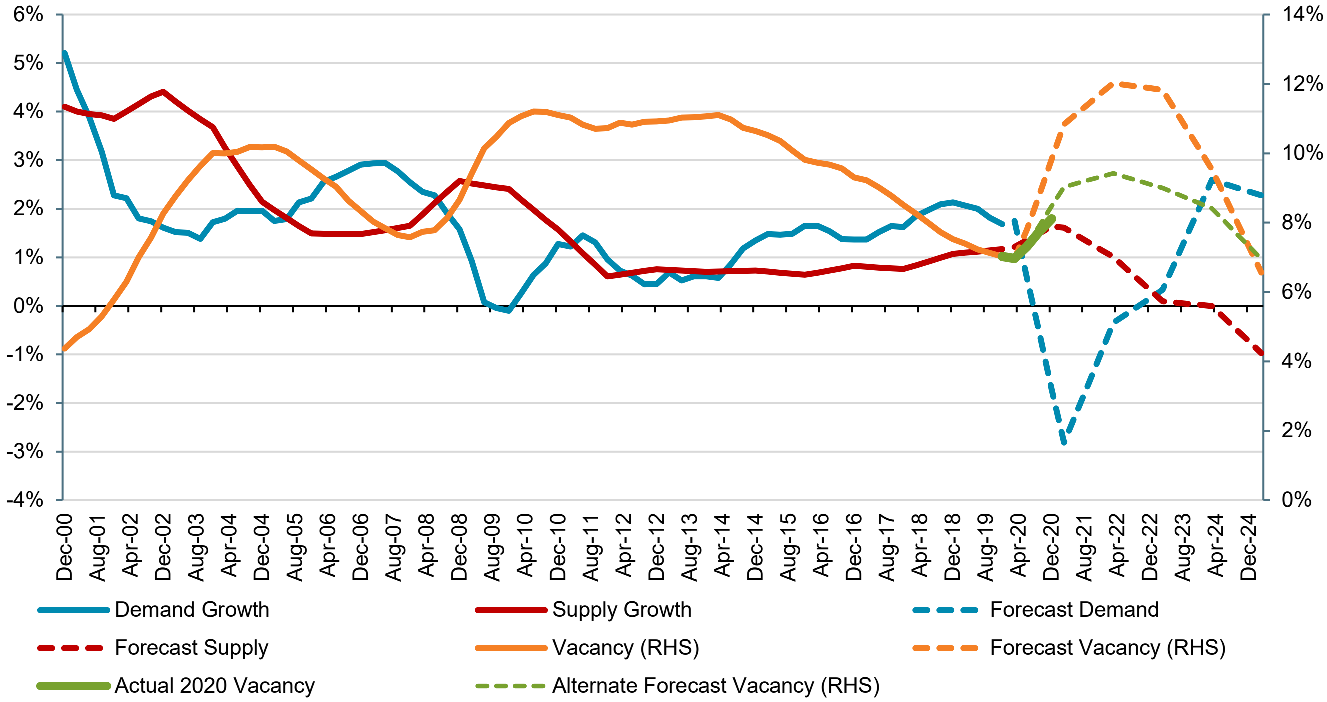
OFFICE

In the office sector, over the long term, we see continuing prospects for solid return generation. However, we recognize that the segment could be undergoing a structural shift in a post-COVID-19 world as more people work from home (WFH). To help us think about the implications, we modeled out several scenarios across about 110 office markets we cover globally.

Our initial finding suggested that European office demand could be lower by potentially as much as 12%, resulting in a sharp rise in vacancy as displayed by the dotted yellow line in Exhibit 25, with a slowdown in supply then helping vacancy to recover to pre-COVID-19 levels within five years.

However, we assessed how vacancy has been performing as shown by the grey line labeled Actual 2020 Vacancy. This suggests we have perhaps been too bearish. We modeled out the trajectory based on actual vacancy and the analysis suggests vacancy reaching around 9% rather than 12% with a slower recovery in the outer years but getting back to a similar pre-COVID-19 level by the end.

Exhibit 25
Office Supply Demand Balance in Europe



Sources: PMA, CBRE, Oxford Economics, Hines Research. As of 2020Q4. Bubbles are sized on the Hines Research Work From Home Susceptibility Score (Larger = Higher Susceptibility to losing office demand due to WFH measures)

We do anticipate supply will adjust lower as developers apply the brakes while, simultaneously, we anticipate demand will funnel into the very best “trophy” assets in the strongest locations. Indeed, we think estate rationalization, should it occur on a widespread basis, will focus on peripheral weaker assets.

We also modeled markets by their susceptibility to WFH. While not a focus of this paper, the analysis did point to variation across markets. For example, London and Paris scored highly in terms of their susceptibility to WFH. But that does not mean these markets are red-lined. Firstly, modeling is never perfect and secondly the reality is that any drop in demand in a high susceptibility “Core” market will likely be countered by a sharp drop in supply while jobs growth will create new space demand, even if less per person due to WFH.

However, demand so far seems to be adjusting lower more so in the higher susceptible markets, perhaps as we would expect. This does suggest that investors ought to be much more diligent and cautious when committing capital to office markets in the coming years, focusing on buying or developing/refurbishing prime, resilient trophy assets in the very best locations that can comfortably withstand such market pressures.

RETAIL

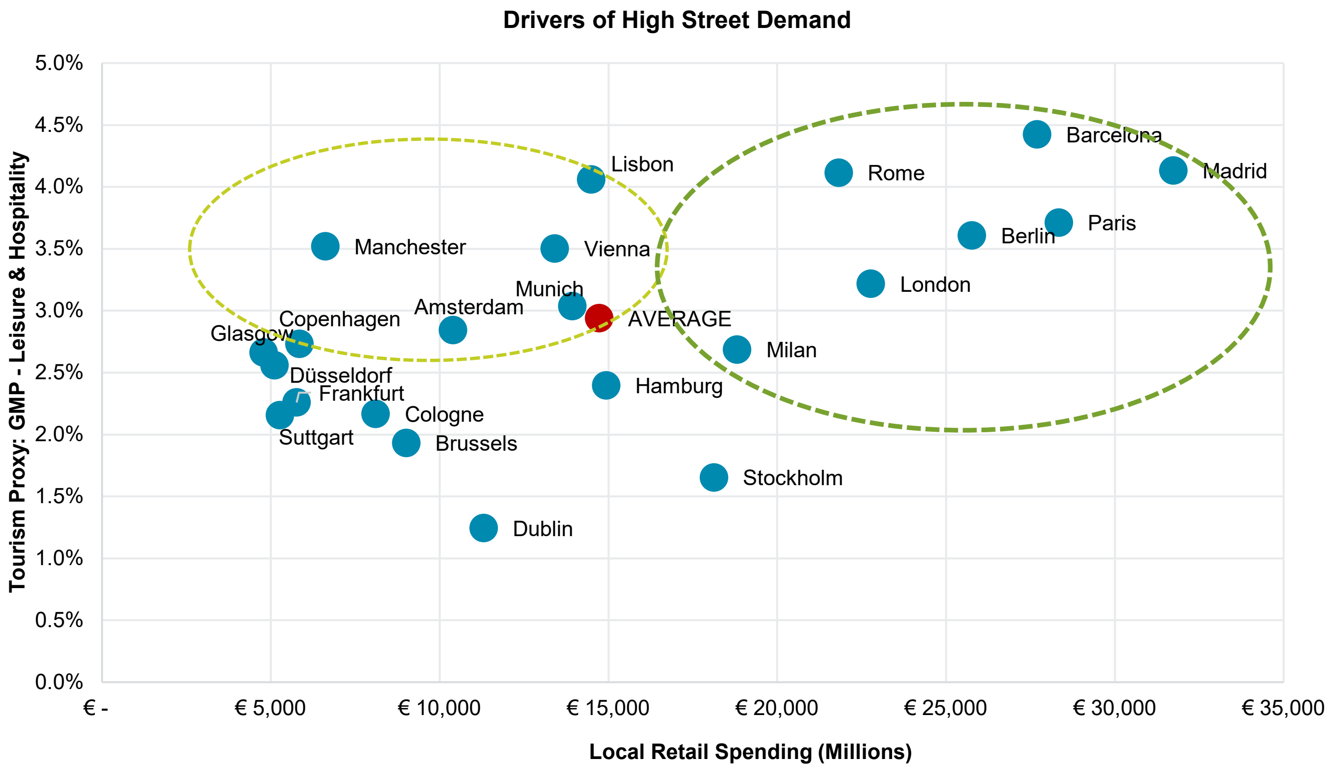
Since the onset of the pandemic, the retail market has continued to suffer. The initial wave of COVID-19 and the resulting lockdown measures in the early part of the pandemic led to a dramatic fall in consumer confidence and loss of retail sales. While Summer 2020 provided a temporary reprieve, the second wave during the Autumn and Winter months led to further, albeit less dramatic, falls in consumer confidence and retail trade. In turn, many retailers, especially in the UK market failed, despite widespread government support, putting further upward pressure on store vacancy. This trend was not isolated to the UK, with store failures picking up throughout Europe with vacancy trending higher. In turn, this has led to substantial rental and value decline across European retail.

However, the picture is far from uniform. Using the UK as an example, where the data is more granular, values are down sharply for all types of retail, but clearly High Street (in the UK called Standard Shops) have proved defensive relative to most other types; additionally, note that properties in the urban core have held up much better than those outside London's center. And, generally, this is indicative of how other markets have behaved particularly when comparing High Street to Shopping Centers.

A closer look at the Parisian high street environment also points to a similar trend. While vacancy has trended higher on the prime pitches and while they are not immune to falls in rent, what is apparent is that vacancy is much higher, and rents have fallen much further in the weaker, non-prime pitches in Paris. And this is generally a similar story across many key markets – that the very best locations, although still suffering relative to their own histories, are faring better relative to other pitches within the city center High Street markets.

Pricing in the retail sector continues to languish. However, retail values have come down to such an extent that prices look very cheap relative to history. Despite this, we do recognize there may be a bit more stress in the short-term, given the ongoing structural adjustment in the segment so perhaps we are not yet at the inflection point in which we would suggest the market is a buy. And of course, the outlook for rents is flat on average. Nonetheless we do think it is time to start monitoring the sector closely. The retail market will likely polarize further, not just within markets and pitches, but across markets too. Our view is that those markets with strong dual demand drivers will be in pole position to not only recover, but also deliver solid capital value and rent growth. We have highlighted some of these markets, such as London, Paris and Milan, key core retail hubs, in Exhibit 26.

Exhibit 26
High Street Demand



Sources: Oxford Economics, Hines Research. As of 2020Q4, using annual data. GMP = Gross Metro Product, essentially a metro's GDP. Using level of local spending as that represents the opportunity for spending, but using Leisure & Hospitality GMP as a share (%) of overall GMP to show the reliance of the local economy on this proxy for tourism.

SECTOR PERFORMANCE OVER THE MID AND LONG TERM

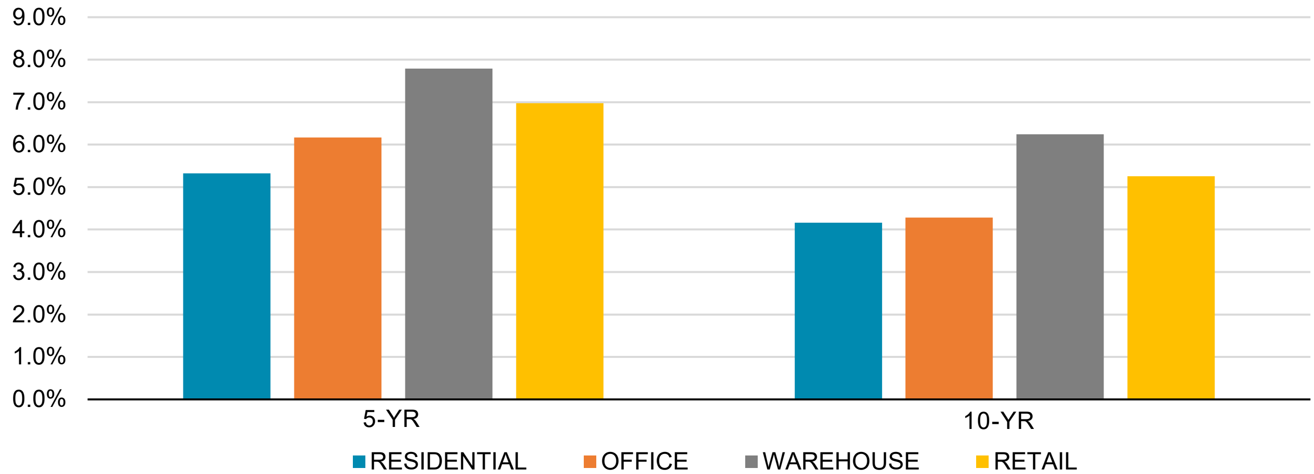
How does performance contrast in terms of total return over the next 5 and 10 years?

Well, at least per our estimates, the logistics sector should continue to remain an outperformer over the next 5- to 10-years. Much of the performance is anticipated to be driven by the broadening of rental growth with yield compression becoming less of an important contributor.

However, return estimates for retail have also increased as the sector transitions to become a "high yield" play while benefiting from base effects given how far values have fallen in the segment – once a floor has been found in terms of rent level, it is entirely plausible that investors start to re-focus here, initially targeting those high street retail markets with strong dual drivers of tourism and local consumption demand.

Office on average is projected to deliver property level returns in excess of 6% in Europe in the coming five years. Over a ten-year horizon, we estimate property level returns to just better the residential segment at over 4%. Of course, as we have already touched on, the sector could potentially face substantial headwinds from the emerging new normal of hybrid working patterns but there remains a great deal of uncertainty here on what shape that would take. In any case, we have firm conviction that trophy, prime assets which are well located, well amenitized and flexible will stand to gain.

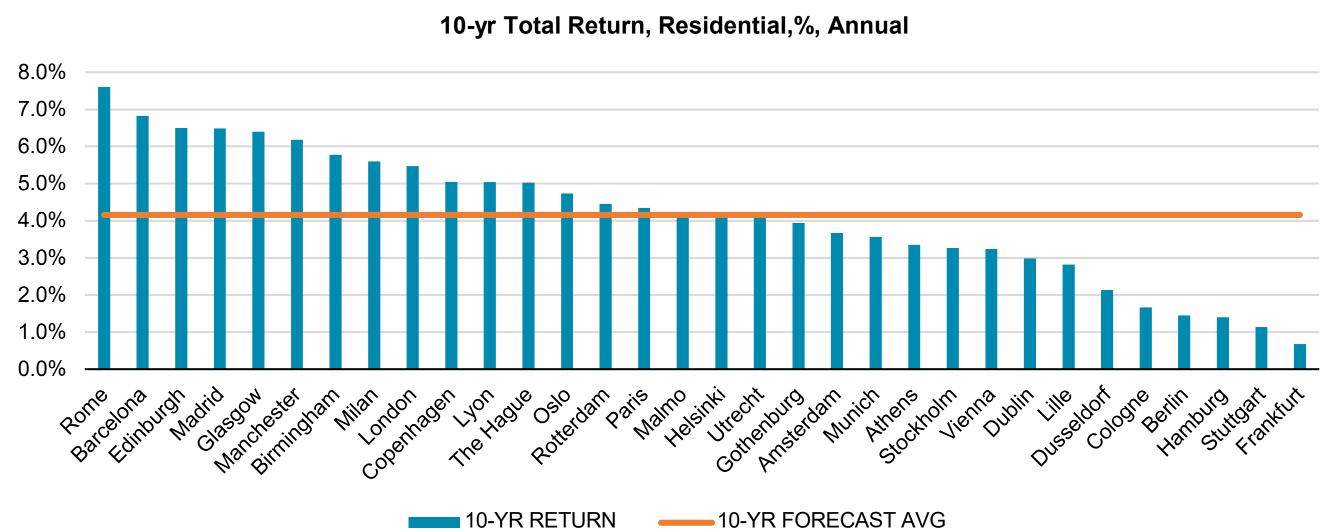
Exhibit 27
Five- and Ten-Year Estimated Returns by Sector



Sources: PMA, JLL, CBRE, Oxford Economics, Numbeo, Catella, Hines Research. As at 2021Q1.

Residential on a relative basis is seen to be a weaker performer, but it is a segment that has demonstrated long-term stability. While return estimates have moderated, there are prospects for generating above sector average returns over the long term in a number of markets.

Exhibit 28
Residential 10-Year Total Returns



Sources: Bulwiengesa, Nomisma, CEIC, CBS NL Statline, Numbeo, Catella, Hines Research. As at 2021Q1.

Conclusion

There is a real opportunity to benefit from stability and diversification through an allocation to core Europe. The region offers a plethora of differentiated opportunities across property sector, with increased institutionalization of the residential segment, a generational opportunity that is expected to further support return stability and reduce volatility. Furthermore, we anticipate substantial flows of capital into European core in the coming years.

Through market and stock selection, and focusing on “core” markets, we believe investors can attain elevated levels of long-term rental performance. While logistics and residential in Europe, the two key sectors that will be critical to “fix the mix” and boost European core performance, have become more expensive, relative value can still be found in many markets across Europe. Investors will need to be much more forensic and diligent, leveraging unique long-term insights, merged with bottom-up boots on the ground views, to unearth value.

Structural changes in retail should result in opportunities in the coming years as the sector enters a new normal while uncertainties in the office sector from the impact of WFH could well create the conditions for winners and losers to emerge; albeit we firmly believe the “trophy assets in trophy locations” segment will display relative resilience.

Hines Research

The co-authors of this paper are Michael Hudgins, Managing Director – Research and Farhaz Miah, Director – Research. They report to Hines Senior Managing Director – Research, Josh Scoville. The Hines Research team is led by Josh Scoville, who is a voting member of the firm's global Investment Committee and reports to the Global Chief Investment Officer. Other members of the Hines Research team include Ryan McCullough, Erik Thomas and Michael Spellane. The team is responsible for constructing the Hines macroeconomic view and outlook for commercial real estate market fundamentals and pricing; assisting with the development of investment strategies for the firm’s investment programs; working closely with the local and fund management teams, clients and partners; and supporting U.S. regional and international country heads in identifying market/submarket opportunities and risks.

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Hines

Disclosure

The NFI-ODCE, short for NCREIF Fund Index – Open-End Diversified Core Equity, is a capitalization-weighted, gross of fee, time-weighted return index with an inception date of December 31, 1977. Other supplemental data such as equal-weight and net of fee returns are also provided by NCREIF for information purposes and additional analysis. To be eligible for NFI-ODCE membership, each member fund must be marketed as an open-end fund with a diversified core investment strategy primarily investing in private equity real estate. All members' funds must adhere to the following index inclusion criteria:

1. At least 80% of the market value of net assets must be invested in real estate with no more than 20% invested in cash or equivalents;

2. At least 80% of the market value of real estate net assets must be invested in private equity real estate properties [no more than 20% of such assets may be invested in, but not limited to, property debt, public company, equity/debt or private company (operating business) equity/debt];

3. At least 95% of market value of real estate net assets must be invested in U.S. markets;

4. At least 80% of market value of real estate net assets must be invested in office, industrial, apartment and retail property types;

5. No more than 65% (± for market forces) of market value of real estate net assets may be invested in one property type or one region, as defined by the NPI;

6. No more than 35% leverage. Leverage is defined as the ratio of total debt, grossed-up for ownership share of off-balance sheet debt, to the fund's total assets, also which are grossed-up for such off-balance sheet debt.

Each member fund must also comply with the NCREIF PREA Reporting standards. A benchmark index is not professionally managed. Investors cannot invest directly in an index.

The NCREIF NPI, short for the NCREIF Property Index, -- is a quarterly index tracking the performance of core institutional property markets in the U.S. The objective of the NPI is to provide a historical measurement of property-level returns to increase the understanding of, and lend credibility to, real estate as an institutional investment asset class. The universe of investments: (1) is comprised exclusively of operating properties acquired, at least in part, on behalf of tax-exempt institutions and held in a fiduciary environment; (2) Includes properties with leverage, but all returns are reported on an unleveraged basis; and (3) Includes Apartment, Hotel, Industrial, Office and Retail properties, and sub-types within each type. The database fluctuates quarterly as participants acquire properties, as new members join NCREIF and as properties are sold. Sold properties are removed from the Index in the quarter the sales take place (historical data remains). Each property's market value is determined by real estate appraisal methodology, consistently applied. Please note that when returns are computed for the NPI, the returns for the levered properties are computed on a de-levered basis, i.e., the impact of financing is excluded. A benchmark Index is not professionally managed. Investors cannot invest directly in an index.

World Headquarters

2800 Post Oak Blvd., Suite 4800
Houston, TX 77056-6118 USA
713 621 8000

European Headquarters

5 Welbeck Street
London W1G 9YQ, England
44 20 7292 1900

Asia Pacific Headquarters

28/F, AIA Central
No. 1 Connaught Road
Central, Hong Kong

Investment Management

David Steinbach
Global CIO
Co-Head Investment Management
713 966 2627
David.Steinbach@hines.com

Christopher D. Hughes
CEO, Capital Markets
Co-Head Investment Management
212 230 2300
Chris.Hughes@hines.com

Alfonso Munk
CIO, Americas
713 966 5200
Alfonso.Munk@hines.com

Alex Knapp
CIO, Europe
44 20 7292 5720
Alexander.Knapp@hines.com

Chiang Ling Ng
CIO, Asia
65 6653 4710
ChiangLing.Ng@hines.com

Capital Markets

SAN FRANCISCO
Cameron Falconer
COO, Deputy Head of Capital Markets
415 982 6200
Cameron.Falconer@hines.com

NEW YORK
J.D. Sitton
Senior Managing Director, Americas
212 294 2523
JD.Sitton@hines.com

SINGAPORE
Young Lim
Senior Managing Director, Asia
65 6653 4720
Young.Lim@hines.com

HOUSTON
Mark Earley
Senior Managing Director
713 966 7706
Mark.Earley@hines.com

MUNICH
Michael Haas
Senior Managing Director, Europe
49 89 14 333 720
Michael.Haas@hines.com

Research

Josh Scoville
Senior Managing Director
Research
617.261.2266
Joshua.Scoville@hines.com

Hines