LONDON CALLING: A CASE FOR OFFICE CAP RATE COMPRESSION

Executive Summary: The UK's 2016 vote to leave the European Union ("Brexit") created economic and financial uncertainty that permeated into commercial real estate capital markets, particularly London's office market. London, historically a top destination for foreign capital, saw a decline in liquidity owing to reductions in cross-border deal volumes as investors fretted over the economic implications of the vote. Liquidity, particularly cross-border liquidity, was further impaired by the Covid-19 pandemic and its ensuing travel restrictions and economic impact. As cross-border liquidity has eroded, London office pricing has diverged from its European peers and cap rate spreads have risen to levels higher than those seen during the Great Financial Crisis. Now, with Brexit and pandemic resolutions coming into focus, Madison believes this pricing disparity could dissipate owing to improved cross-border liquidity and cap rate compression in the London office market.

A POTENTIAL OPPORTUNITY FOR LONDON OFFICE CAP RATE COMPRESSION

Brexit and its Aftermath on the CRE market	The Brexit vote created uncertainty over capital treatment and potential industry flight causing a decline in liquidity and a divergence in pricing from European peers.
London Pricing vs Historical Norms	Cap rate spreads in the London office market have continued to rise and are now even larger than those seen following the financial crisis.
London vs Prime European Metros	We believe office pricing in London looks attractive when compared to European prime cities, which saw larger cap rate compression in the years following Brexit.
Potential Opportunity and Risks	The uncertainties surrounding Brexit and the Covid-19 pandemic are waning while monetary policy remains loose, potentially setting the stage for London cap rates to converge towards the levels of its European peers.

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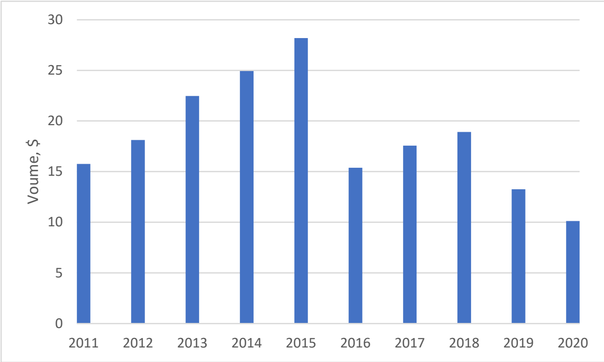
Brexit and its Aftermath

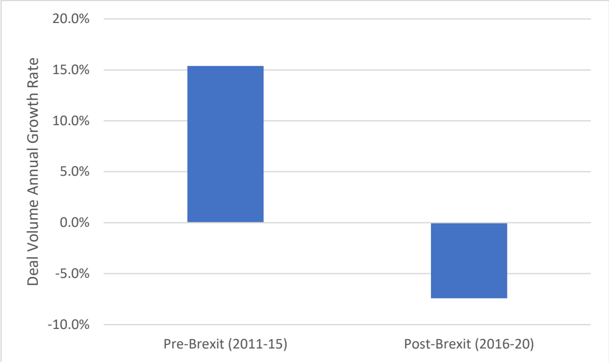
Declining Liquidity and Cross-Border Volume

London Cross-Border Deal Volume, $



Source: Real Capital Analytics, www.rcanalytics.com as of 2/25/21

Overall Deal Volume Growth Per Year, Pre and Post-Brexit



Source: Real Capital Analytics, www.rcanalytics.com as of 2/25/21.

The 2016 vote for the UK to leave the EU ("Brexit") resulted in heightened economic uncertainty as trade deals would need to be established and the future of the financial industry's access to Europe was called into question. The heightened uncertainty had a profound effect on London commercial real estate capital markets as liquidity eroded rapidly, a situation only exacerbated by the Covid-19 pandemic and recession.

Prior to the Brexit vote, commercial real estate deal volume was growing steadily at a rate of 15.4% per year from 2011-15, reaching a peak of $43 billion. Volume fell sharply in 2016 in response to the vote measuring just $24 billion and has averaged an annual decline of 7.4% per year from 2016-20, with 2020 seeing just $15 billion in deal volume owing in part to the pandemic. [1]

The decline was particularly stark in cross-border deal flows, which historically comprise 65% of total London deal volume.[2] Cross-border deal volume in 2020 was 64% lower than its 2015 peak and at its lowest levels since the Great Financial Crisis.

[1] Real Capital Analytics, www.rcanalytics.com as of 2/25/21
[2] Real Capital Analytics, www.rcanalytics.com as of 2/25/21

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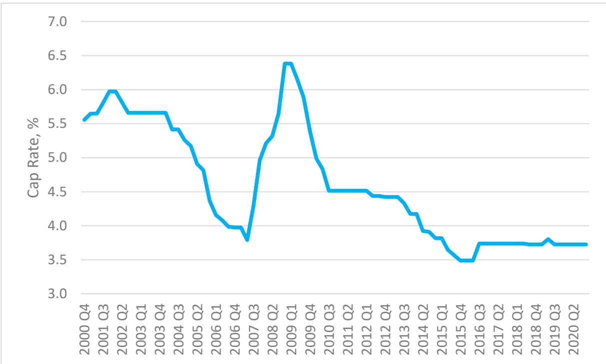
London Office Pricing

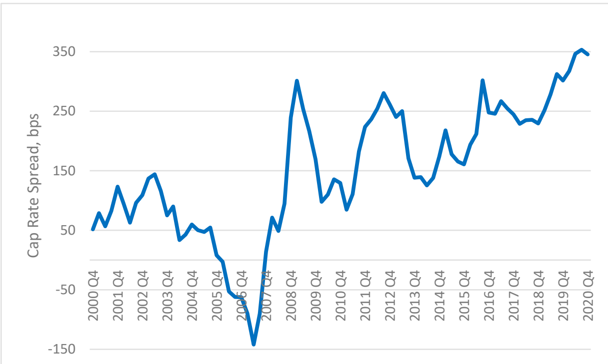
Cap Rate Spreads Rose as Liquidity Declined

Cap Rates Rose Very Mildly Post-Brexit And Remain Near Lows



Source: PMA as of 3/2/21

Cap Rates Spreads Have Risen to Record Levels



Source: PMA, Oxford Economics as of 3/2/21

The liquidity decline has had a notable effect on London Office pricing, though nominal cap rates mask the effect. PMA data shows that London Office cap rates have held steady at 3.7% since the start of 2016 and only registering a 20 bps increase since the Brexit decision. However, during this time interest rates have fallen substantially, from just under 2% on the 10-year Gilt to 0.27% as of the fourth quarter of 2020 per Oxford Economics[3]. This means risk premiums have widened substantially, as cap rate spreads have measured near 350 bps in the wake of the pandemic. Cap rate spreads are at their highest level in this data series history some 100 bps higher than their previous peaks in the wake of the financial crisis and 160 bps above their average level during the pre-Brexit GFC recovery.

The erosion in pricing is more clearly reflected in prime capital values, which saw sharp growth following the Great Financial Crisis and again after the Euro Crisis, averaging year over year growth of 13.0% from 1Q2011 until 2Q2016. Prime capital values peaked at €34,698 psm in the second quarter of 2016 leading into the Brexit referendum and have been declining since. Prime capital values have fallen 13.7% from their pre-Brexit peak and 5.1% from a year ago to €29,955 psm.

[3] Oxford Economics as of 3/2/2021

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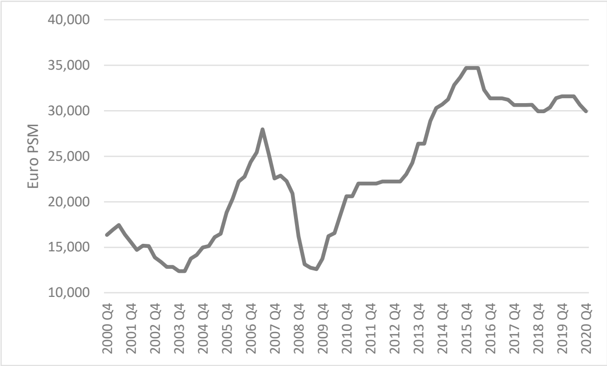
London Office Pricing

Cap Rate Spreads Rose as Liquidity Declined

Capital Values Have Eroded Since Brexit



Source: PMA as of 3/2/21

The rise in cap rate spreads and decline in prime capital values highlight the discount London office has traded at in the wake of the economic uncertainty created by Brexit and compounded by the Covid-19 pandemic and recession. However, with a Brexit trade deal agreed to and vaccination underway, we believe this uncertainty may soon lift, potentially resulting in appreciation.

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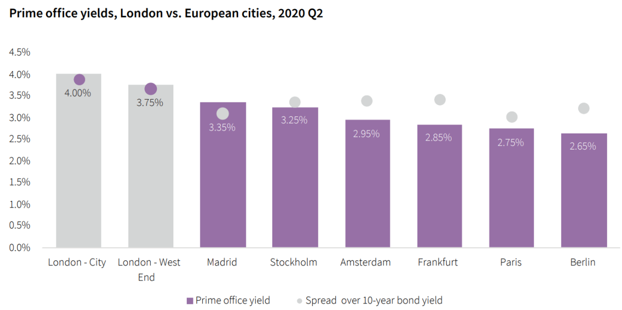
London Vs. Europe

London Looks Attractive Relative to its Peers

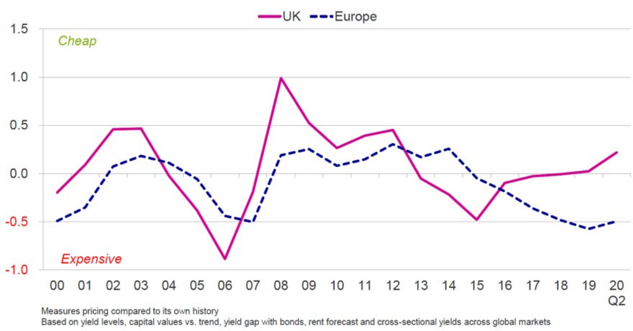
London Cap Rates and Cap Rate Spreads Are the Highest Among Peer Cities



Source: JLL as of 2Q2020

UK Pricing is Cheaper Than Europe

Standard Deviation Compared to Average Through 2Q2020



Source: PMA, October 2020

London office pricing is not only currently attractive relative to its historical basis but also when compared to its peer set in Europe. Nominal cap rates in the City of London and West End are higher than in Madrid, Stockholm, Amsterdam, Frankfurt, Paris and Berlin, measuring 4.00% and 3.75% respectively per JLL. The next highest cap rate is 3.35% in Madrid and cap rates in Amsterdam, Frankfurt, Paris and Berlin are all below 3%. While negative rates from the European Central Bank compared to 0% interest rates set by the Bank of England is partially responsible for the lower nominal cap rates in other prime European cities, London office cap rate spreads are higher than any of its European peers as well offering a higher risk premium for investors.

A PMA analysis of European and UK commercial real estate pricing relative to their historical averages since 2000 illustrated a divergence in relative value and further highlights the potential opportunity in the London office market. European commercial real estate pricing is currently 0.5 standard deviations more expensive than its historical average. The last time European commercial real estate pricing measured at this relative level was just prior to the Great Financial Crisis in 2006-07. Meanwhile, UK commercial real estate pricing is currently trading at a discount relative to its historical pricing, measuring 0.25 standard deviations below average, having risen consistently since 2015 when they measured 0.5 standard deviations more expensive than average prior to the Brexit referendum.

London office pricing on nominal, cap rate spread and historical relative value basis is currently more attractive than the other prime European markets.

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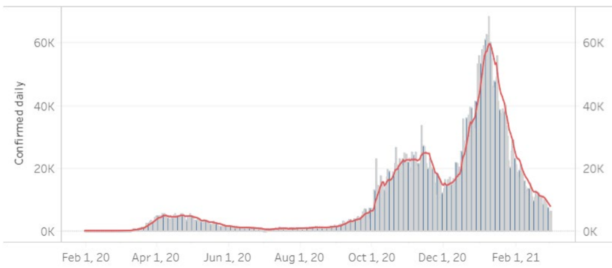
Opportunity and Risks

Brexit and Covid are Resolving

Covid Cases In the UK Have Plunged Owing to Lockdown and Vaccination



Source: Johns Hopkins University as of March 2021

While London office pricing is currently attractive owing to its higher cap rates and cap rate spreads than other European prime cities, what we believe makes this fact compelling is the coinciding timing of two catalysts that could reduce the uncertainty surrounding the market and establish the conditions for cap rate compression.

The first is the resolution to Brexit, as a trade agreement was reached between the UK and the EU in December 2020[4] with some final outstanding issues scheduled to be resolved in the Spring of 2021. We believe the Brexit referendum was the initial driver of cap rate spreads widening in London as it created uncertainty over the nation's economic outlook and the city's financial sector. However, Bank of England Governor Andrew Bailey noted that the financial sector only lost 5,000-7,000 jobs as a result of Brexit, "substantially less…than the sorts of numbers that were being talked about after the referendum."[5] We believe the majority of Brexit risk appears to have passed alleviating one of the drivers of cap rate spread expansion.

Additionally, substantial improvement is being made in containing the Covid-19 pandemic and establishing a path back to economic normalcy. As of early March, UK Covid cases are currently averaging 7,800 per day over the last week, down from a peak of 58,000 per day in January[6].

4 https://www.gov.uk/government/publications/agreements-reached-between-the-united-kingdom-of-great-britain-and-northern-ireland-and-the-european-union

5 https://www.reuters.com/article/us-britain-boe-bailey-jobs/uk-has-lost-up-to-7000-financial-services-jobs-due-to-brexit-boe-says-idUSKBN29B1XE

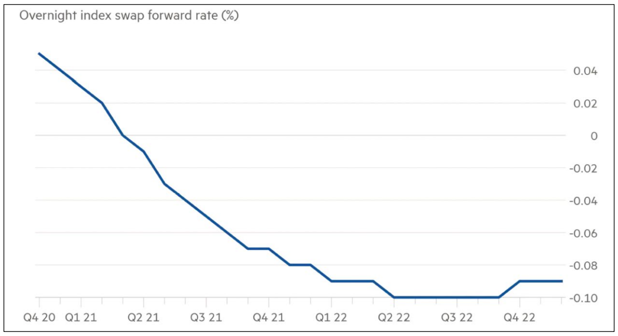
6 Johns Hopkins University, MIR Data and Research as of March 2021

LONDON CALLING: A CASE FOR OFFICE CAP RATE COMPRESSION

Opportunity and Risks

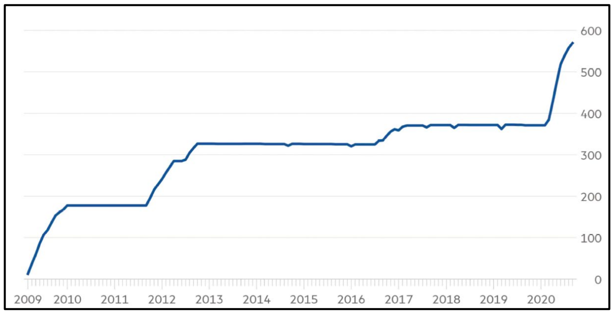
Interest Rates are Set to Remain Low

Overnight Swaps Expect Interest Rates to Turn Negative Next Year



Source: Financial Times[7][8]

Bank of England Gilt Holdings Have Surged



Source: Financial Times[9]

The improvement in Covid-19 cases has been triggered by a national lockdown and vaccine distribution. As of early March the UK had administered 21.9 million doses of Covid-19 vaccines at a pace of 364,000 per day and 32% of the population had received at least one dose. [10] The improvement in cases and proliferation of vaccines has allowed Prime Minister Boris Johnson to outline a plan that seeks to have all economic restrictions removed by June. The Office of Budget Responsibility is projecting 4% GDP growth this year as restrictions impact the first half of growth and 7.3% GDP growth in 2022 when the economy will surpass its pre-pandemic peak. [11]

Assuming that the economy remains on a path to return to normalcy and growth and that Brexit and related financial shocks are mostly completed, two drivers of cap rate expansion would be alleviated, which Madison believes would lead to spread compression. Interest rates meanwhile, are poised to remain low for some time. The Bank of England has taken significant easing measures, and now owns 44% of the Gilt market, double the proportion of the Federal Reserve in the US[12]. Additionally, overnight swaps are pricing in negative interest rates next year as the Bank of England has told banks to prepare for negative interest rates as they could become a necessary policy tool pointing to monetary policy remaining loose for some time.[13]

7 Bank of England Faces New Doubts Over the Potency of Buying Bonds, Financial Times, November 2020

8 Forecasts are inherently limited and should not be relied upon as indicative of future events

9 Bank of England Faces New Doubts Over the Potency of Buying Bonds, Financial Times, November 2020

10 Bloomberg, https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/

11 OBR Pains Brighter Picture for UK Economy, Financial Times, March 2021

12 Bank of England Faces New Doubts Over the Potency of Buying Bonds, Financial Times, November 2020

13 New York Times, https://www.nytimes.com/2021/02/04/business/bank-of-england-negative-interest-rates.html

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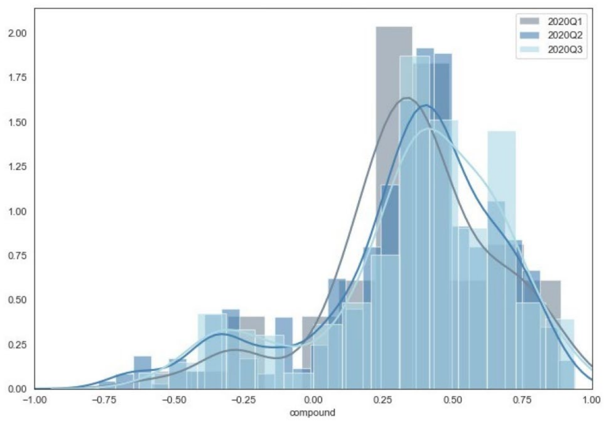
Opportunity and Risks

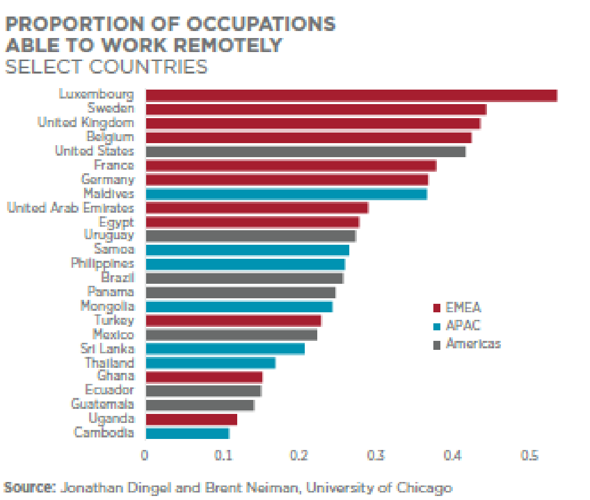
Remote Work and Asset Selection

US Executives Have a Positive View of Remote Work



Source: MIR Research[14] as of December 2020

UK's Economy Is One of the Most Amenable to Remote Work in Europe



As of June 2020

As uncertainty and risk subsides from the UK office market, Madison believes liquidity will improve, especially once foreign investors can travel freely to the country again, and cap rate spreads will revert towards their long-term average and European peers. Coupled with monetary policy that is poised to remain accommodative, Madison believes this will result in declining cap rates for London office assets.

However, one risk to this thesis we wish to highlight is the sector facing a structural repricing owing to the proliferation of remote work, which became a more common practice during the pandemic. Madison Research has shown through sentiment analysis of earnings transcripts that US executives have a positive view of work from home. The UK's economic construction is also conducive to remote work with one analysis showing it trailing only Luxembourg and Sweden globally in the proportion of occupations able to work from home. Should remote work remain widespread, we believe London office asset pricing should be more insulated than its European peers owing to its higher nominal cap rates and cap rate spreads.

[14] Chart represents Work From Home Sentiment Analysis from more than 2,700 earnings call transcripts from U.S. companies, 2020Q1 to 2020Q3. Within these transcripts, conversations that mentioned "work from home" or related phrases, such as "remote work," were isolated and run through a Valence Aware Dictionary and Sentiment Reasoner (VADAR) algorithm that scored the sentiment of the phrase on a continuum from -1 (negative) to 1 (positive). These scores were then plotted into distributions to determine the aggregate sentiment expressed by executives on the calls towards remote work and any potential shifts in sentiment over time. The above Sentiment Analysis is based on Madison's proprietary methodology and is subject to change.

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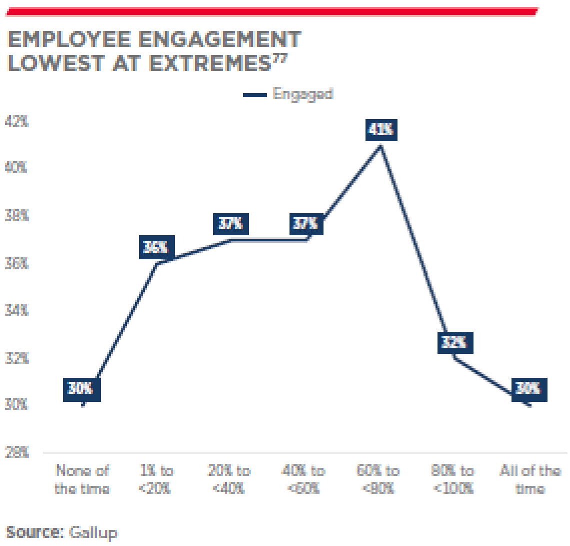
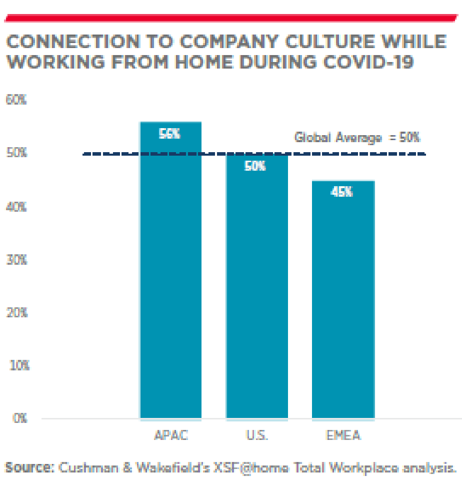
Opportunity and Risks

Remote Work and Asset Selection

Employee Engagement is Highest When Utilizing a Hybrid Approach to Remote Work



As of February 2020



As of October 2020

That said, Madison believes employers are more likely to utilize flexible working arrangements and maintain a physical office space as opposed to going fully remote en masse. Data shows that employees still desire the ability to utilize an office and are most engaged when utilizing a hybrid model that allows them to work from home a few days a week. While working fully remote during the pandemic, nearly half of employees struggled to connect with company culture, felt they weren't learning and did not have a sense of well-being per a Cushman and Wakefield study. Cushman and Wakefield found that every firm in their study still utilized a physical office in some form.

The risk presented by remote work to office fundamentals can be further mitigated through asset selection. Madison believes that generational office assets with long weighted average lease terms and strong credit tenancy face lower risks to near-term occupancy and cash flows from remote work. This is evidenced by Hines UK's pre-let at The Grain House in the West end, which Knight Frank notes stemmed from a shortage of what they refer to as best in class space, American Express renewed their 131,000 sq ft lease in Belgrave House and Netflix leased 87,000 sq ft in the Copyright building. Furthermore, 56% of new construction is pre-let, highlighting the persistent demand for quality space.[15] We believe lower quality assets or those with substantial space to release may face risks from reduced space needs of tenants as employers adapt to hybrid models.

[15] Knight Frank, The London Office Market Report Q4 2020

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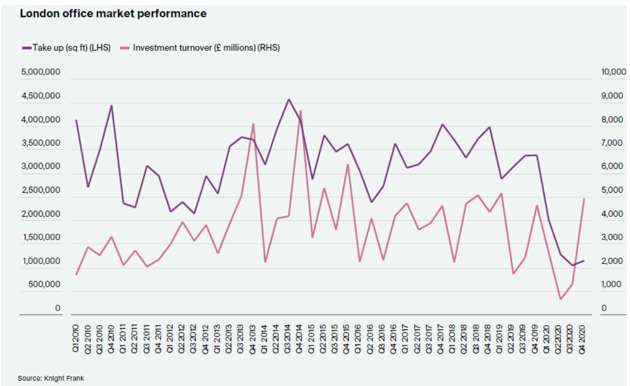
Opportunity and Risks

Remote Work and Asset Selection

London Office Investment Volumes Showed Signs of Rebounding in Q4



Source: Knight Frank, The London Office Market Report Q4 2020

Madison believes that London office assets, particularly those with long WALTs and strong credit tenants profiles, could see value appreciation in the coming years as cap rates compress and liquidity improves in the wake of a Brexit resolution and the end of the Covid-19 pandemic and recession while interest rates are poised to remain low for the foreseeable future. We believe this provides a compelling potential opportunity for investors to capitalize on reduced commercial real estate in a top global destination for capital.