MARKET
RESEARCH

European Listed Real Estate

Sector Report: Office

FTSE EPRA Nareit Global
Real Estate Index Series

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I. Introduction

The office sector is one of the oldest and most traditional sectors in the listed real estate (LRE) industry. Its history can be tracked for decades depending on the region, and of course pre-dates the FTSE EPRA Nareit (FEN) Global Real Estate Index series itself. This is a quite homogeneous sector across the regions, mostly thanks to the introduction of REIT regimes in several countries using the U.S. model as the main reference point. Therefore, most of the differences between the companies are related to the type of tenants, property locations, implementation of new technologies and specific economic drivers. In the last five years, the sector has faced some interesting changes worldwide. In Europe like anywhere, all the restrictions associated to the Covid-19 pandemic have pushed vacancy rates upwards and office take-ups downwards, forcing several landlords and tenants to redesign their corporate strategy and even to implement new business models, flexible office space, mobility and working from home policies being some of the most discussed topics. Brexit also plays to some extent a role in the sector’s expected performance, with different effects across the biggest European metropolises but perhaps having a smaller impact than at first feared.

However, some of these trends are likely to be temporary, while others seem to bring significant changes for the industry in the long term. In this report we analyse many of these trends. Firstly, we will briefly introduce the Office sector before analysing several of the most important changes currently affecting it. In section 2, we explore the main characteristics of the sector from an investment management perspective. Section 3 looks at some of the most relevant trends for this sector in Europe in the post-pandemic period, reviewing the opinion of various experts and analysing possible structural changes for the sector that could materialise from 2021 onwards. Finally, section 4 presents some key takeaways.

II. A quick look at the Office sector

101 Champs-Élysées, Paris (Gecina)

A. OFFICE-SPECIALISED LANDLORDS AROUND THE WORLD

We will start by defining the size of this sector from a global perspective. Using the Bloomberg Industry Classification Standard (BICS) methodology, EPRA identified 127 listed office landlords and developers from both developed and emerging markets[1]. This number also includes some diversified companies, where office-buildings are the core property type in their portfolio. This universe of 127 companies from 32 countries represents EUR 234 bn in Full Market Capitalisation (Full Mkt Cap) and EUR 196 bn in Free Float Market Capitalisation (FF Mkt Cap) as at the end of May 2021.

FEN Developed EMEA Index: Office Constituents as of May/21

Constituent Name	Country Code	Full Mkt Cap (EUR M)
Gecina	FRA	9,585.38
Derwent London	UK	4,630.82
Inmobiliaria Colonial S.A.	SP	4,498.07
FABEGE	SWED	4,345.25
CA Immobilien	OEST	3,473.34
Entra ASA	NOR	3,316.46
alstria Office	GER	2,646.14
Workspace Group	UK	1,903.92
CLS Holdings	UK	1,169.93
Befimmo	BELG	1,016.94
Hibernia REIT PLC	IRE	800.43
NSI	NETH	658.01
Helical	UK	620.35
Regional REIT	UK	440.48

Source: EPRA

EPRA Members not included in the FEN Index Series as of May/21: Office Specialists

Company Name	Country Code
Arima	SP
Vitura	FRA
COIMA RES	ITA
EPH European Property Holdings	UK
Fonciere Atland	FRA
McKay Securities	UK

Company Name	Country Code
Nova RE	ITA
Platzer*	SWED
SF Urban Properties AG	SWIT
Societe de la Tour Eiffel	FRA
Züblin Immobilien Holding AG	SWIT

*Platzer has been added to the FEN Index series in Jun/21 and classified as Industrial/Office Mixed.

Focusing on the Index, the FEN Global Index series counts 54 office constituents that represent EUR 171 bn in Full Mkt Cap and EUR 147 bn in FF Mkt Cap, as well as 12 constituents classified as Industrial/Office Mixed which totalled EUR 25 bn in Full Mkt Cap and EUR 22 bn in FF Mkt Cap. We conclude that the FEN Global Index shows a rate of representativeness of 86% of the global Office-specialised real estate industry measured by its FF Mkt Cap. When looking at the list of Index constituents per region as well as the diversified companies owning office buildings and some EPRA members, we can identify several well-known names who own some remarkable properties, many of them considered true urban landmarks:

[1] Frontier markets and unrated countries in the FTSE Russell country classification have been excluded.

Lucent W1 - Piccadilly Lights, London (Landsec)

Vertical Forest, Milan (Coima)

When comparing the size of the regional Indexes, it is possible to observe some relevant differences, although not as significant as in the case of other sectors. As expected, the biggest regional Index is the FEN North America Office Index with EUR 74.4 bn, followed by the FEN Developed Asia Office Index with EUR 42.5 bn and the FEN Developed Europe Office Index with EUR 27.6 bn. The FEN Emerging Office Index comes in the last place with EUR 2.2 bn, mainly due to lower level of specialisation across the emerging countries, where most companies operate a diversified business model.

FEN North America Index: Top 3 Office Constituents as May/2021

Constituent Name	Country Code	Full Mkt Cap (EUR M)
Alexandria Real Estate Equity	USA	19,929.54
Boston Properties	USA	14,933.77
Kilroy Realty	USA	6,682.43

Source: EPRA

Empire State Building, NYC

Prudential Center, Boston

Simultaneously, the FEN Industrial/Office Mixed has grown significantly in recent years, reaching EUR 29.9 bn in FF Market Cap as May/21. This is thanks to not only the presence of more companies developing, owning and leasing big industrial parks, IT parks and urban warehouses, which traditionally work as a combination of both office and industrial properties, but also thanks to the re-orientation in the strategy of some diversified companies, who decided to move into a dual sector strategy, where industrial and logistic properties work as a perfect catalyser for the big office developments.

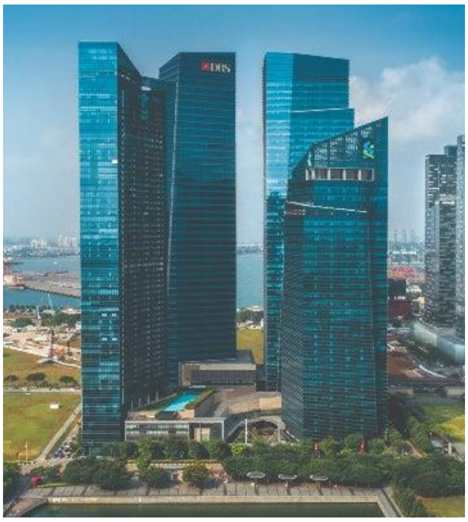
FEN Developed Asia Index: Top 3 Office Constituents as May/2021

Constituent Name	Country Code	Full Mkt Cap (EUR M)
Hongkong Land Holdings	HK	9,277.19
Nippon Building Fund Inc	JA	8,514.68
Dexus Property Group	AU	7,205.37

Source: EPRA

One & Two Exchange Square, Hong Kong

Marina Bay Financial Centre, Singapore



FEN Emerging Index: Top 3 Office Constituents as May/2021

Constituent Name	Country Code	Mkt Cap (EUR M)
Embassy Office Parks REIT	IDA	3471.764
Ascendas India Trust	IDA	985.8882
BR Properties SA ON	BRAZ	730.0589

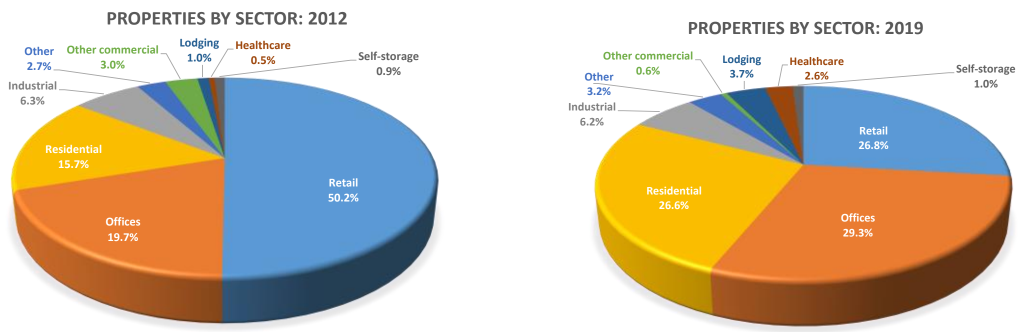
Source: EPRA

Burj Khalifa, Dubai

Embassy 241, Mumbai

Looking closer at the European landscape, over the last few years property companies have been increasing exposure to the office sector within their portfolios. By the end of 2019, the value of the office buildings owned by constituents of the FEN Developed Europe Index reached EUR 171.9 bn, representing 29.3% of the total portfolio of EUR 586.3 bn. This proportion is significantly higher than the 19.7% seen at the end of 2012, which highlights the strategy change implemented by several key players in the industry and the decline of some historically larger sectors such as retail.

Property Portfolio Owned by the FEN Developed Europe Index Constituents



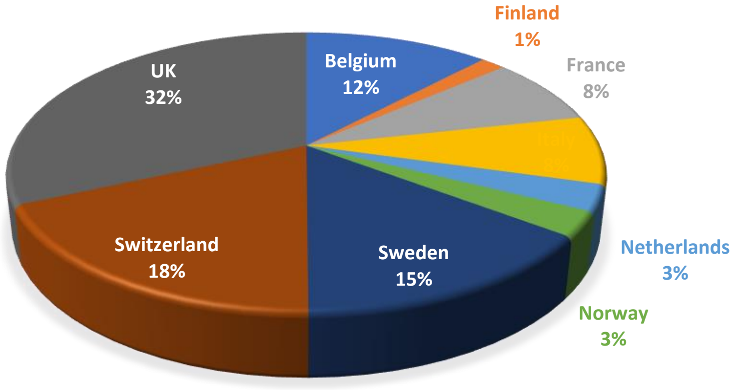
Source: EPRA

B. EVOLUTION OF THE FTSE EPRA NAREIT OFFICE INDEX

The FEN Developed Europe Office Index was created in January 2006 following the introduction of the sector classifications to the global Index series in 2005. At that time, the office Index included around EUR 18.4 Bn in FF Mkt Cap and included 21 constituents (5 from the UK, 4 from Switzerland, 4 from Belgium, the rest spread over Europe). 15 years later, in 2021, the Index has a total FF Mkt Cap of EUR 28.8 Bn and constituent presence is more dispersed. 5 of the 14 constituents are based in the UK and no other country features multiple constituents. The UK had the greatest number of constituents on average since 2006 (3.4), followed by Switzerland and Belgium (2.9 for both). The largest changes in constituent numbers between 2006 and 2021 for Switzerland (4 fewer members) and Belgium (3 fewer members) and these two countries were also among the 3 with the largest variation in constituent numbers during the period (with standard deviations of 1.2 (UK), 1.7 (Switzerland) and 1.2 (Belgium)).

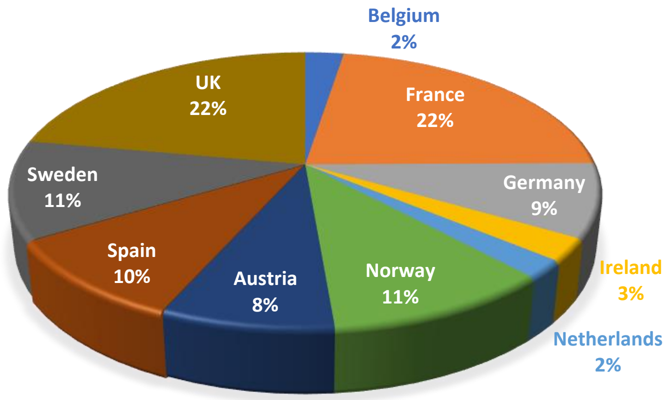
The charts below illustrate the proportions of FF Mkt Cap in the Index allocated to each country in 2006 and 2021. The countries that experienced the largest increases in total weighting between 2006 and 2021 were France (+16%), Spain (+10%) and Germany (+8%) while the countries with the largest falls were the UK (-10%) and Switzerland (-8%).

FEN DEVELOPED EUROPE OFFICE % WEIGHT AT 28/12/2006



Source: EPRA

FEN DEVELOPED EUROPE OFFICE % WEIGHT AT 31/05/2021



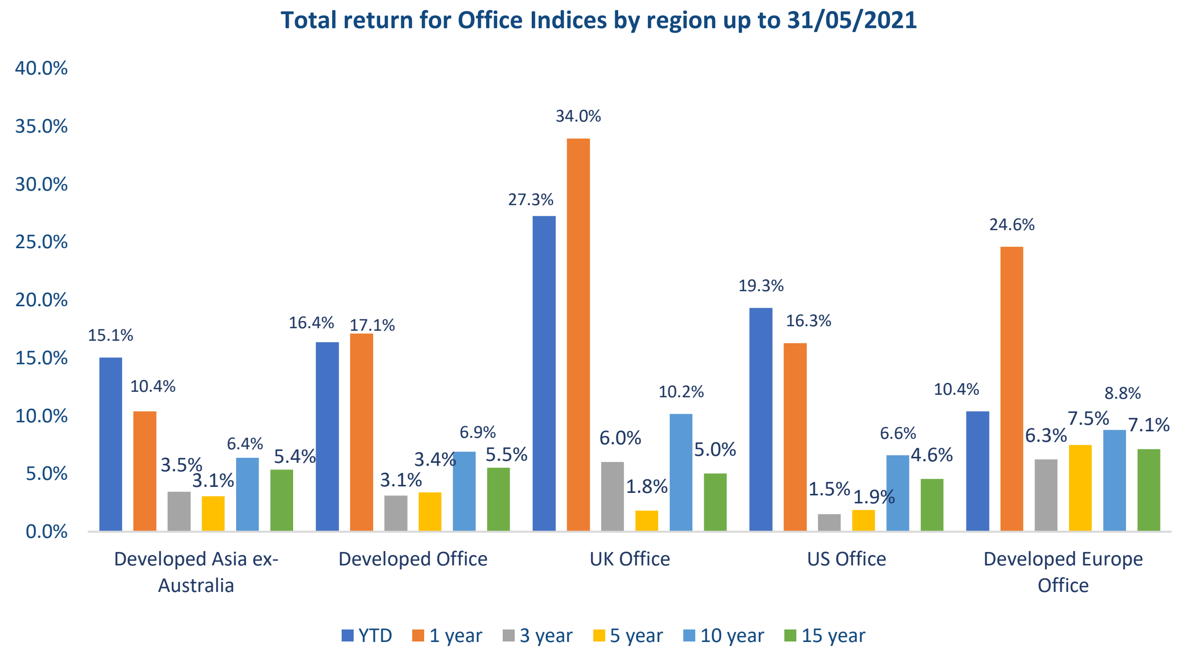
Source: EPRA

Of the 5 UK members in 2006, the 3 largest (Great Portland Estates, Derwent Valley Holdings and Workspace Group) operated almost exclusively in London and only CLS Holdings had a multinational presence. This trend has continued into 2021 so that, despite increased regional (ex-London) exposure through the addition of Regional REIT in June 2019, the 3 largest UK constituents (Derwent London, Workspace Group and Helical) now operate exclusively in London. Overall the FF Mkt Cap of constituents operating exclusively in London increased from 64.25% to 87.71% of total UK FF Mkt Cap and London-exclusive Derwent London increased their weight in the FEN Developed Europe Office Index from 8.64% to 13.23%.

The large rise in allocation to France is due to the entry of Gecina, one of only two changes in France's constituents during the period (the other being the deletion of Silic in 2012). Gecina was classified as Diversified in the years leading up to 2015 when it first entered the Office Index. It briefly left the Office Index after again being reclassified to Diversified in 2016 before rejoining the Office Index in 2017 where it has remained since. With a €19.7 Bn portfolio, 96% of which is located within the Paris region, Gecina now constitutes over 22% of the Developed Europe office Index. The greater allocation to Norway results from the addition of partly state-owned Entra ASA to the Index after its listing in 2014. This constituent is single-handedly responsible for the total weighting of Norway increasing from 3% to 11% and it is now the only Norwegian constituent.

The first years of the FEN Developed Europe Index were defined by the economic expansion of the late 2000s and the subsequent recession. After reaching an accumulated return of 50% between the Index's inception in January 2006 and its pre-crisis peak in February 2007, the Index fell almost 66% to its trough in March 2009. After recovering with a CAGR of 32% during 2009-2010 the Index maintained steady growth with a CAGR of 12% over 2010-2013 during the Eurozone debt crisis, returning to its pre-crisis peak in February 2014. Between 2014 and the beginning of 2020 the Index grew at a CAGR of 15.3% before experiencing a fall of 16% in 2020 due to the coronavirus pandemic. Over the past 15 years, the Index's accumulated return has exceeded that of the Developed Europe and Global Developed Indices, with the outperformance slowing in recent years. In terms of classification, the majority of Office index members also maintained industrial properties, with 70-80% of FEN Developed Europe Office members classified as Industrial & Office REITs in 2019 (roughly the same as 2012). The number of constituents classified as operating a diversified strategy increased from 0% to 10% over the period and the number classified as operating a holding and development strategy fell from 24% to 12%.

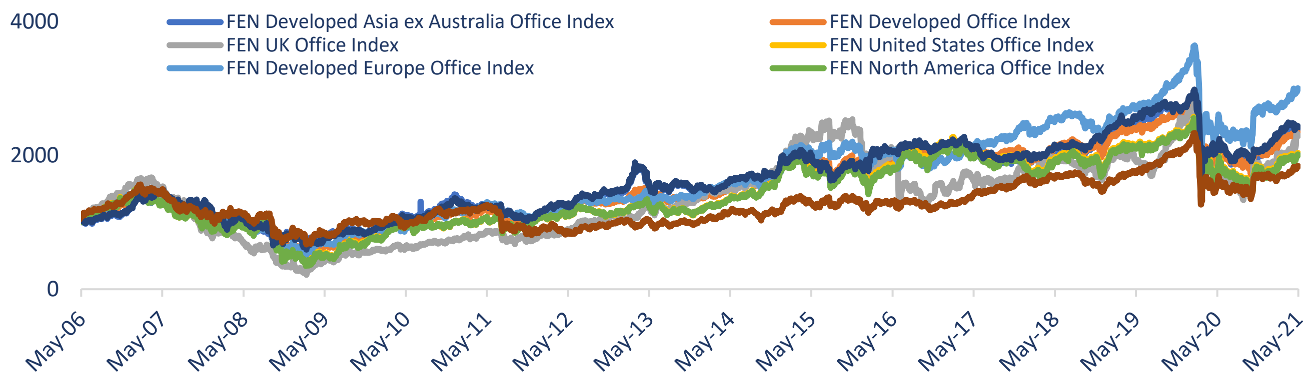
The graph below depicts the total return over different periods for regional Office Indexes (specifically the UK, US, Developed Europe, Developed Asia and the Eurozone). All returns are annualized except ytd. As the chart shows, the highest returns over the 15-year period came from Developed Europe, with annualized returns of 7.1% while the UK has performed best at the ytd, 1 year and 10 year horizons with annualized returns of 27.3%, 34% and 10.2% respectively.



The graph and table below depict the total return of the main office indices and the proportion of total return over different time periods attributable to dividends respectively. As can be seen, dividends were responsible for the largest portion of total return for Eurozone office constituents at the longest time horizons. At the shortest time horizons the UK has seen the highest proportion of total returns coming from dividends while at the longest time horizons, Eurozone firms have contributed the highest portion of returns through dividends. Both regions have had a high average number of REITs (which are required to distribute a substantial portion of profits as dividends) over the period (78% of Eurozone constituents and 82% of UK constituents).

Another factor contributing to the relatively high magnitude of dividend returns relative to price returns was the poor performance of the Eurozone price index over the period which has lagged behind that of other regions since 2012. The price-dividend decomposition shows that despite this, office firms in the Eurozone continued to pay high dividends.

Total Return of Office Indexes up to 31/05/2021



Source: EPRA

Dividend return/Total return for office indexes up to 31/05/2021

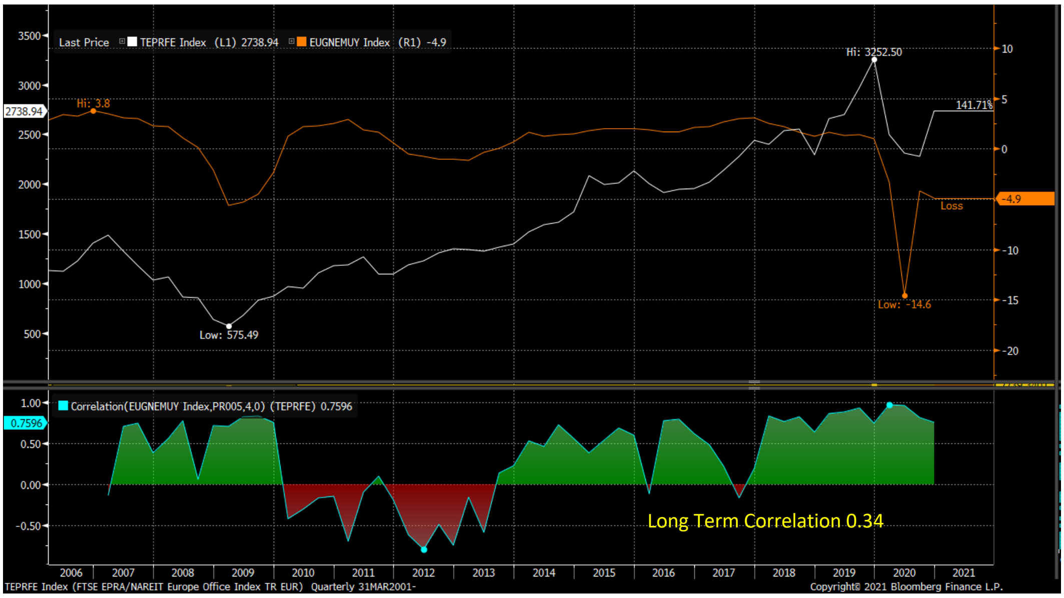
Dividend Return/Total Return	FEN Developed Office	FEN UK Office	FEN US Office	FEN Developed Europe Office	FEN Developed Asia Office	FEN Eurozone Office
YTD	9%	104%	7%	19%	10%	26%
1 year	27%	93%	25%	21%	39%	33%
3 year	116%	171%	215%	57%	107%	106%
5 year	102%	352%	164%	50%	114%	60%
10 year	59%	58%	58%	50%	65%	105%
15 year	77%	82%	85%	64%	79%	122%

C. THE OFFICE SECTOR AS A PORTFOLIO DIVERSIFIER

To conclude this introduction about the European listed real estate Office sector, we present a short analysis exploring the diversification benefits from an asset allocation point of view. First of all, following a top-down approach, it is possible to indentify some intresting facts looking at the correlation between the FEN Europe Index and the Eurozone GDP growth.

The annual correlation (4 quarters) seems to remain quite stable around a mean of 0.5, except for the period 2010-2013 where the Eurozone debt crisis had a strong effect on the continent's economic growth but did no affect the Office sector. Therefore, the long term correlation of 0.34 seems to be negatively biased by that specific episode, however, the current annual correlation remains high (0.76), suggesting not only positive tailwinds for the Office sector during the post-COVID economic recovery in Europe, but also a signigicant diversification potential for investors looking for exposure to the main economic drivers in the contintent.

FEN Europe Office Index (Left) vs Eurozone GDP Growth (Right): Quarterly, Mar/06 – Dec/20



Source: EPRA & Bloomberg

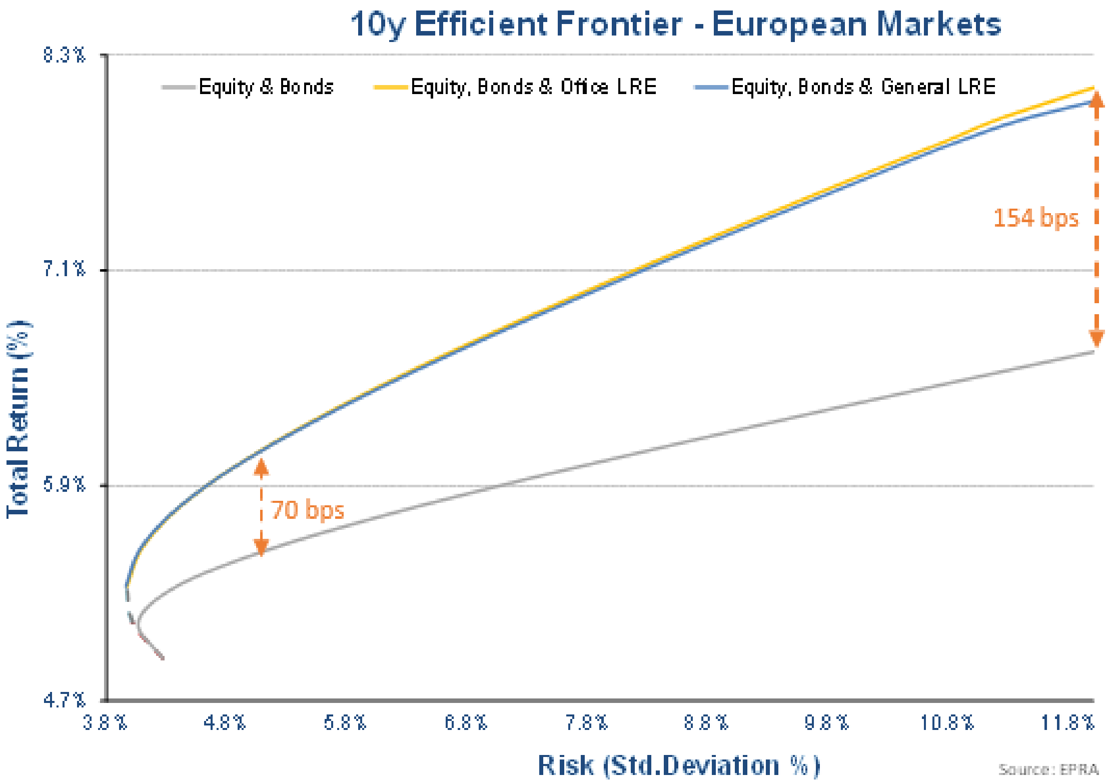
Moving downwards from the continental economic growth into the equity market, the correlation between the Office sector and the general equity markets is also positive and significant, where the annual correlation (52 weeks) usually moves in the range 0.5 – 0.82, with exception of the period Jun/19 – Feb/20 where reached a minimu of 0.22. That is how the long term correlation remains positive (0.72) but still offers a significant diversification potential for investors looking for exposure to both equity and property markets in Europe.

FEN Europe Office Index (white) vs FTSE All World Europe Index (orange): Weekly, Dec/10 – Dec/20

Source: EPRA & Bloomberg

Finally, as expected, the biggest diversification potential can be identified by using a multi-asset class approach, mainly driven by an insignificant and even temporary negative correlation between the LRE Office sectors and the bonds markets in Europe.

Indeed, the 10 years monthly correlation between the FEN Europe Office Index and the JPMorgan GBI European bonds Index was -0.0017 as Dec/2020, which of course represents an extraordinay potential for diversification in the generalist investors' portfolios. In fact, by runnig an efficient frontier exercise incorporating the three asset classes (i.e European equity, European bonds and European Office LRE), we identified a diversification potential of 70 bps in terms of annual return for low risk portfolios (annual volatility below 5%) and 154 bps for high risk portfolios (annual volatility above 10%).



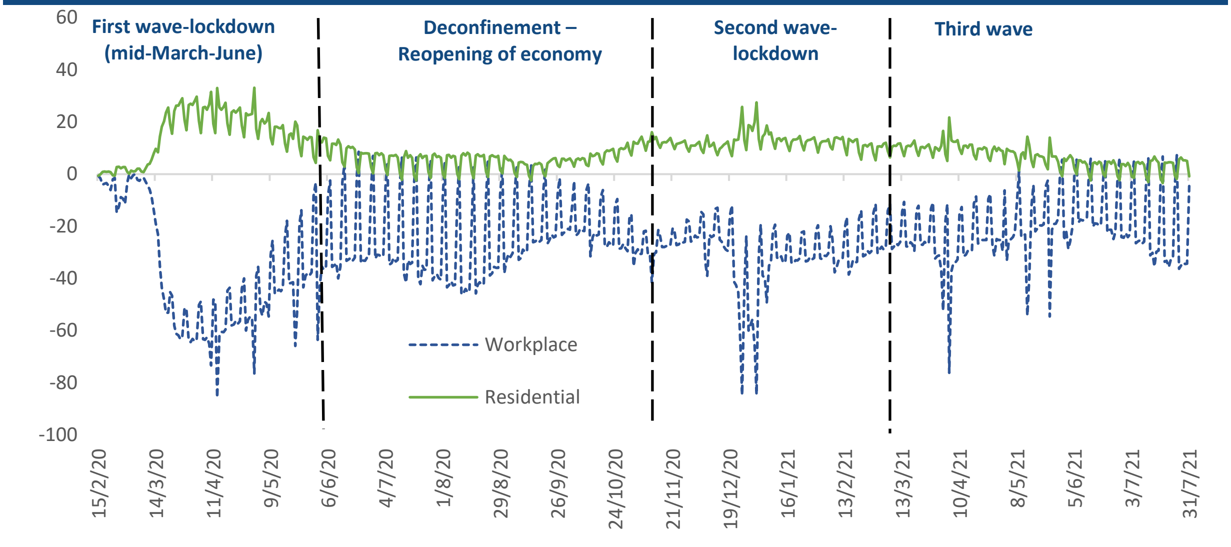
III. Ongoing and Future Trends in the European Office Space

A. WORKING FROM HOME: A REAL THREAT?

Remote-working or teleworking are not new concepts for the office market, but the working from home (WFH) experience during the COVID-19 pandemic had a catalyser impact on accelerating the trends that were already underway for a while. Experts and business leaders expect an increase in remote working in the future, the main question remains how workplaces will transform to address widespread adoption of WFH policies in the near future. The debates around the evolution of workplaces are focusing on change in space utilisation, location preferences and flexibility. Before discussing possible impacts of WFH, we can look at mobility trends during the pandemic. Most of the European countries implemented strict measures (including full lockdowns) in line with the increasing number of cases and fatalities, following the recognition of COVID-19 as a pandemic by the WHO (March 11, 2020). Although the economic activities were re-opened in June, lockdown measures and social restrictions were reintroduced in many countries at the end of October to contain a second wave of COVID-19.

Most of the companies adopted WFH policies since the beginning of the pandemic, which can be observed in workplace-related mobilities, adversely impacted by restrictions during the first and second waves. A slight increase has been observed with deconfinement policies during the summer period.

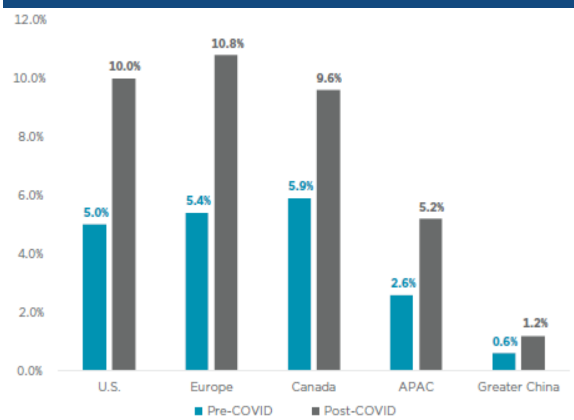
Mobility score of residential and workplace mobility in the selected countries



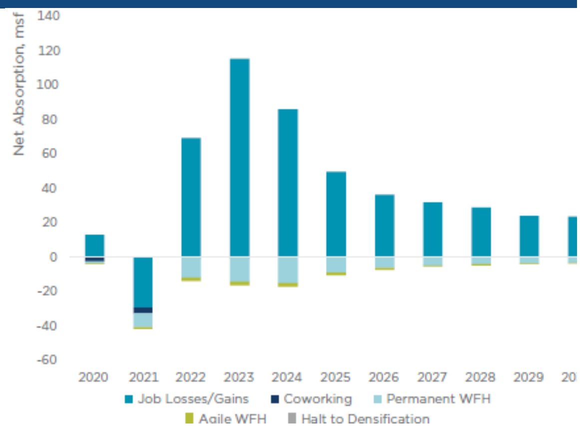
Source: EPRA. Data is compiled from Google Mobility Analytics (between 15/02/2020-31/07/2021) with an average of the countries with higher number of COVID-19 cases and implemented strict lockdown rules (Belgium, Germany, France. Italy, Netherlands, Spain and the UK).

It is reported that 44.6% of employees worked from home during the pandemic and over three quarters of EU employees want to continue WFH at least occasionally. Most of the employees shared a positive experience of teleworking during the pandemic with the preferred option being a mix of teleworking and presence at the workplace in the post-COVID period (Eurofond, 2020). A recent survey by McKinsey indicates that the potential for remote working is likely to persist in the wake of the pandemic, especially among highly-skilled, highly-educated workers in a handful of industries, occupations and geographies, such as finance, professional services, IT and telecom in advanced economies. According to Cushman & Wakefield, the share of people working permanently from home in the US and Europe is estimated to have increased from between 5% and 6% pre-COVID-19 to between 10% and 11% post-COVID-19, and significantly lower across Asia Pacific and Greater China where WFH is less common. Globally, a total of 8.9 million sqm. of negative absorption is estimated. Of that, 82% is related to cyclical factors – office-using job losses and coworking impacts – and the remaining 18% related to structural factors – an increase in remote working. The European office sector is forecasted to contract by 5.4 million sqm. With the combined cyclical and structural impact, that increase in remote working could reduce office demand by 0.95 million sqm in 2021.

Permanent WFH over the next 10 years



European office demand forecast

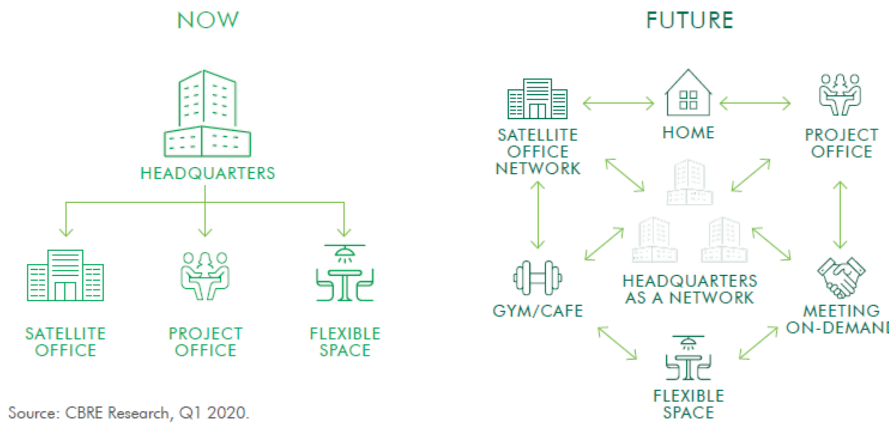


Source: Cushman & Wakefield (2020), Global Office Impact Study & Recovery Time, Part 1.

On the other hand, there is also a positive sentiment towards returning back to offices as stated by Savills: "Occupiers' behavioural changes and the speed of return to the workplace will act as the main determinants for rental growth prospects across the major European markets. Despite an increase in vacancy rates, high quality vacant office space remains limited in the core Western European markets. Should rental growth prospects improve in the coming months as we expect, then the markets currently shown as fairly-priced will become under-priced, becoming even more attractive to investors."

Most of the companies foresee a hybrid workforce distributed between the office, home and "third places". Workplaces will thus evolve to address those changing needs. There is a strong focus on flexibility, not only when it comes to the function of workplaces, but also in terms of location preferences. According to CBRE's survey, 'city centres are not likely to be overshadowed by suburban markets', and 'office buildings are not likely to be abandoned in favour of home offices'. Another survey by EY & ULI suggests a shift in language from 'office' to 'workspace', increasing demands for healthy building amenities, and accelerating a blending of uses between residential, hospitality and office spaces as an ecosystem of workplaces. The suggested hybrid workforce also requires hybrid models to redefine workplaces (CBRE, JLL) and companies will consider providing access to alternative workplaces, including home-offices, co-working places, satellite offices and headquarters – a combination of urban and suburban solutions.

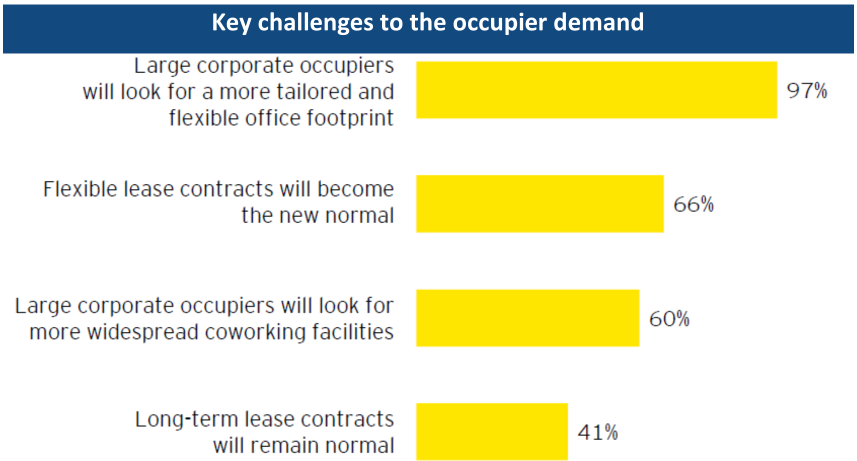
A hybrid workforce network



Source: CBRE Research, Q1 2020.

Another expected impact is a change in the business models and a move towards flexible and tailor-made leasing models. The key challenge in office occupancy is planning for uncertainty and adjusting portfolio strategies accordingly. Many companies are considering accommodating a more remote workforce since the COVID-19 pandemic and pursuing actions that will help them optimise their portfolios, including consolidations, renegotiations and renewals (CBRE).

It is also expected that some countries/cities/markets are likely to experience some stronger structural shifts from an increase in remote working than others, such as London and Paris, driven by higher residential prices, longer commute times and greater congestion. The Nordic countries also have higher adoption of WFH (prior to COVID-19) with a large ICT (information and communications technology) employment share. The CEE region and Benelux, with a smaller population and lower density, have lower WFH adoption and a lower workplace density (C&W, 2020).



Source: EY&ULI (2020). What key changes to the office occupier demand are you anticipating? (% of "likely" responses). ULI survey, 555 respondents, August September 2020.

There is no doubt that we will witness a changing working environment, but homeworking is unlikely to replace the traditional working model completely. The main question remains how workplaces will transform to address office tenants' expectations in terms of 'flexibility', 'meeting, cooperation and interaction' and 'digitalisation'.

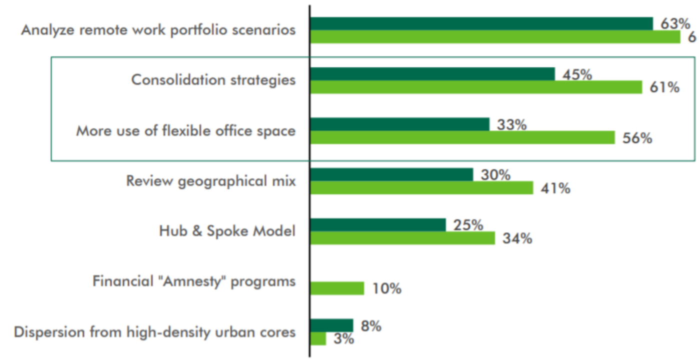
B. FLEXIBLE OFFICE SPACE: STILL A TREND?

Flexible office space is not a new concept, it has already been a fast-growing segment within workplaces fuelled by advances in technology and digital disruption. Flexible office was a small niche in real estate industry, but it has already started to move into the mainstream with a spectrum of various products such as co-working and shared offices. The pandemic has accelerated workplace evolution with the changes in how people work and the demand for different workplace formats and has also caused disruption in traditional office space and business models.

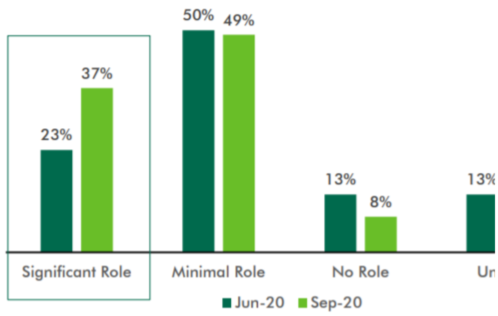
Indeed, the demand for flexible workspace has dramatically changed since the pandemic started and COVID-19 became a test for the sustainability of some flexible space models. According to several surveys, the adoption of remote working and the return to work will drive demand for flexible workspace. JLL predicts that the demand for flexible space will continue to increase, though in a different form than in the pre-pandemic era, and 30% of all office space could fall into this category by 2030. Opportunistic flexible space operators and/or investors could take advantage of this market consolidation (JLL). A survey by ULI & EY indicates that flexibility becomes a key for future workspace, both for employees and corporates as well as for business activities, workplaces and locations. Some of the expected impacts on the real estate industry are increased demand for flexible office footprints (96%), flexible lease contracts (66%) and coworking facilities (60%). It is expected to see more use of co-working facilities globally (63% of Europeans vs. 48% of APAC and 35% of Americas) as well as more widespread use of coworking facilities by large corporate occupiers (72% of Europeans vs. 58% in APAC and 48% in Americas).

Another survey by CBRE on the future of offices, revealed that flexible solutions are attracting greater interest, with 56% considering more use of flexible office space as an alternative for uncertainty. Corporate occupiers are looking for changes, tailored solutions to meet their demands like flexible office space options (82%) and shared meeting spaces (74%). The flexible office space might play a significant role in real estate strategies in the long term (increase from 23% to 37%).

Future portfolio strategies



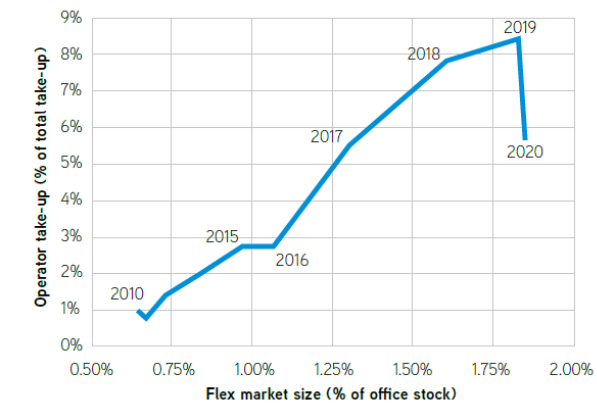
Role of the flexible office space in long-term real estate strategies



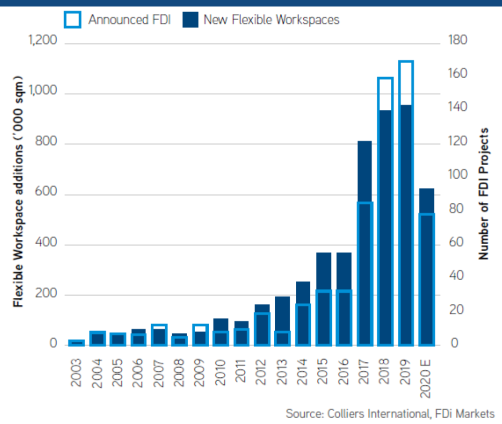
Source: CBRE (2020). The Future of the Office Survey Highlights September 2020. (*) Coworking, serviced office, suites etc.

According to Colliers, EMEA office markets saw a considerable slowdown in the demand for and new supply of flexible workspace in the first half of 2020. Only about 330,000 sqm of new flexible workspace operations, 50% lower than the previous year, was committed to by operators and landlords across the surveyed markets who shed their immediate expansionary plans in response to the outbreak of the COVID-19 pandemic. However, flexible workspace take-up in the majority of markets (as a proportion of total take-up) remained in single digits, during the first half of 2020.

Flexible workspace market evolution EMEA



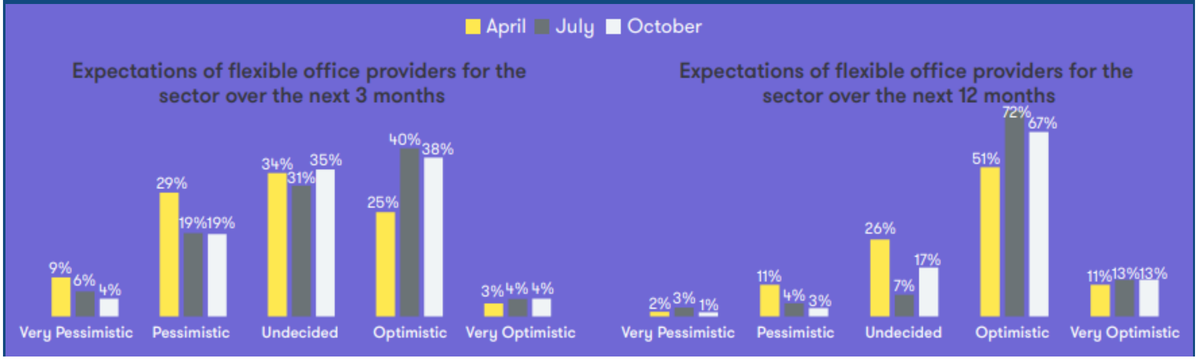
Flex take-up & FDI 2020 forecast



Source: Colliers (2020a) Flex Forward: The Flexible Workspace Report 2020.

Although the flexible workspace sector has not been immune to the effects of the pandemic, there are positive signs and expectation about the sector offering expanded opportunities. In order to help better understand how COVID-19 is impacting flexible offices around the world and how sentiment has changed over time in 2020, Office Sentiment Surveys are conducted by Workthere, and it is indicated that flexible office providers are more optimistic for the future compared to the beginning of the pandemic.

Europe flexible office sentiment survey: April-October 2020 Snapshot



Source: Workthere (2020) Global Flexible Office Sentiment Survey October 2020.

It is reported that demand for flexible space is likely to be resilient and flexible space is positioned for strong growth in the post-pandemic era. Large occupiers have rapidly adopted agile space strategies by incorporating flexible spaces in line with increasing workplace mobility (JLL). Flexible offices will provide alternative solutions, as enterprise occupiers are adjusting their strategies to manage the “new normal”. Asset owners across the region are increasingly interested in having exposure to the sector, not just for flexible workspace but also for the range of offered services and amenities (Colliers, 2020a). In a recent survey, more than 50% of respondents considered a flexible workspace solution to accommodate a longer-term office (considering a core space with stable headcount projections) and also almost half of the respondents expected a minimum of 10% of their portfolio to be flexible within three years (Colliers, 2020c).

Two key trends for flexible space growth which demonstrate an ability to changing circumstance, are expected. Firstly, operators providing private working environments have been transacting well, while those providing pure co-working space struggled to secure working space for occupiers due to the lack of assurance regarding COVID-19. Secondly, there is a decentralisation trend in which flexible space demand is moving away from the city centre to suburban locations (Colliers, 2020a). According to JLL, challenges such as WFH and social distancing might cause consolidation of the flexible space operator market in the short term, therefore investors will be significantly affected by increasing vacancies in their assets and lease renegotiations. On the other hand, cash-rich, opportunistic flexible space operators and/or investors could take advantage of this market consolidation. The increasing remote working will reshape workplaces and investors will look to repurpose their vacant spaces and potentially operate their own flex space in the medium term, while in the long term, a mix of traditional and flexible space will be even more important in CRE portfolio strategies, therefore a greater need for flexible space to accommodate portfolio expansion and contraction (JLL).

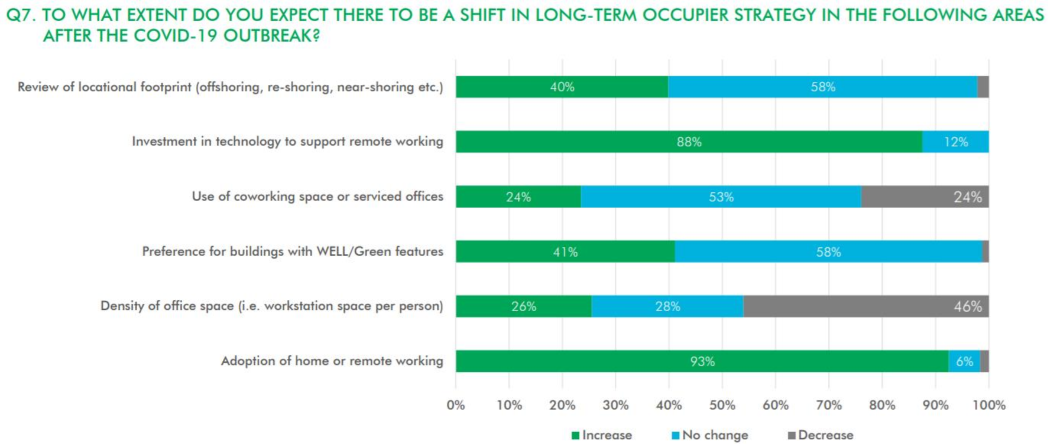
Actually, the flexible office market has been transformed over the last 5-10 years, not only the traditional office landlords have started to focus on such products, but also new flexible office specialists have emerged. Main occupiers are either start-ups or existing businesses seeking flexible workspace for task or location purposed reasons. In addition, traditional office occupiers continue to re-design and optimise their workspaces. (CitiGPS). The amount of flex spaces is growing dramatically but also market practices were evolving in different business models with flexible lease agreements and more amenities.

There are still some challenges for investors, asset owners and operators in terms of design, valuation, Capex contribution and management agreement, etc. It is highlighted that if Flex 1.0 was about where people work; Flex 2.0 will be the focus on how people work (Colliers, 2020b). It will be challenging to implement all aspects into the workplace ecosystem, not only in space design and adopting technology, but also in providing innovative, flexible and tailored leasing models. In a post-pandemic era, it will be critical to facilitate the occupier’s preferences while maintaining a collaborative environment, wellbeing and corporate culture.

C. COVID-19: AN ACCELERATOR FOR HEALTH AND WELL-BEING IN WORKSPACES?

As discussed in the previous paragraphs, trends that were defining the future of offices have been accelerated during the Covid-19 pandemic; and so it is for health and well-being in workspaces. Recent surveys show that a shift in long-term occupier strategy is expected, not only in relation to a potentially increased adoption of home and/or remote working but also when it comes to spaces with well-being features.

It is clear that, in the medium to long-term, tenants will place a stronger emphasis on buildings with 'healthy' credentials.



Source: CBRE Research, EMEA Occupier Flash Survey, 2020

The business case for healthy buildings

A significant body of research has demonstrated the role of air quality in workers wellbeing and productivity. In 2014 The World Green Building Council presented a compendium[2] of case studies which pointed to productivity enhancements of up to 11% thanks to high indoor air quality measures.

The same strategies have proven to lead to a higher cognitive functioning performance of occupiers with their increased productivity estimated to be USD 6500 each/year[3].

Interestingly, improving air quality, particularly humidity, can also reduce the risk of minor respiratory illnesses such as coughs and colds: short term sick leave has been found to be 35% lower in offices ventilated by a high air supply rate, with an associated financial value estimated to be USD 400 per employee per year.

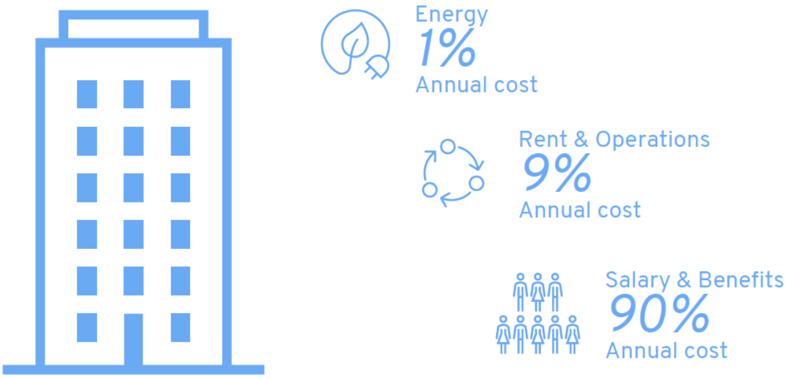
What is the benefit for landlords and tenants?

The main cost for an office-based business in relation to real estate is the cost associated to people using and occupying it (e.g. staff costs in salaries and benefits). If an organisation is able to increase its employees' productivity by 5% or at least just reduce absenteeism and sick leave by 5%, this can easily cover the real estate costs of that business.

[2] World Green Building Council (2014). Health, Wellbeing & Productivity in Offices.

[3] Harvard T.H. Chan School & others (2015). The COG Fx study: Impact of green buildings on cognitive function.

MAIN COST BREAKDOWN FOR AN OFFICE-BASED BUSINESS



Source: World Green Building Council, Health, Wellbeing & Productivity in Offices, 2014

The chart illustrates why if landlords support tenants' staff while working in their building, this can have more impact on tenants' bottom line than focusing purely on reducing rent or energy costs. If a property provides a high-quality space which helps to attract and retain tenants and their staff, and generate higher productivity levels, then that building will better support the tenants' business success. A healthy and productive building-user experience will also flow into a much more attractive market proposition, with positive impacts on rental value and tenant retention. survey of 200 Canadian building owners, presented by the World Green Building Council, found that:(1) 38% of those who reported increased value said that healthy buildings were worth at least 7% more than normal ones, (2) 46% said they were easier to lease, and (3) 28% said they commanded premium rents[4].

As demonstrated by the previous figures, well-being strategies at the building level are a good investment for both landlords' and tenants' business. Even more in a post-pandemic context, occupiers will look for healthy workplaces as they preserve health and long-term productivity of their employees. Landlords are also expected to act and respond quickly to this market demand for high well-being performance buildings with the potential acceleration for more well-being certified buildings (i.e. WELL, Fitwell, Reset) - a trend already established in the sector that we will see increasing further over the coming years.

D. INDUSTRIAL & OFFICE MIXED: PROS AND CONS

This section gives us the opportunity to touch on two similar but different concepts. On the one hand, from the FEN Global Real Estate Index series point of view, we have the Industrial/Office Mixed sector. This *"in-house"* sector classification is assigned to Real estate investment trusts (REITs) or corporations that are not classified as Industrial or Office but have a combined total of 75% or more of their gross invested book assets in industrial warehouses, logistics and distribution facilities, industrial/business parks and offices.

Within the FEN Developed Europe Index, the Industrial/Office Mixed universe comprises 8 companies from 4 different countries and represents EUR 19 Bn in Full Mkt Cap and EUR 16 Bn in FF Mkt Cap as the end of May 2021. On a wider level, the FEN Global Index series counts with 13 Industrial/Office Mixed constituents that represent EUR 38 Bn in Full Mkt Cap and EUR 30 Bn in FF Mkt Cap as of the end of May 2021.

[4] Source: World Green Building Council (2016). Building the business case: Health, Wellbeing and Productivity in Green Offices.

FEN Developed EMEA Index: Industrial/Office Constituents as May/2021

Constituent Name	Country Code	Full Mkt Cap (EUR M)
Castellum	SWED	5,859.74
Kungsleden	SWED	2,287.77
Nyfosa AB	SWED	2,040.01
Klövern AB	SWED	1,554.07
Sagax Ord Shs Class B	SWED	6,811.45
Intervest Office	BE	591.62
Picton Property	UK	544.16
Standard Life Inv Prop Income Trust	UK	303.69

Source: EPRA

FEN Developed EMEA Index: Industrial/Office Total Returns as May/2021

Constituent Name	Country Code	5Y TR (%)	10Y TR (%)
Castellum	SWED	16.19	12.07
Kungsleden	SWED	14.99	8.03
Nyfosa AB	SWED	N/A	N/A
Klövern AB	SWED	14.63	13.50
Sagax Ord Shs Class B	SWED	N/A	N/A
Picton Property	UK	6.98	8.52
Intervest Office	BE	4.70	5.71
Standard Life Inv Prop Income Trust	UK	-0.03	4.46

Source: EPRA

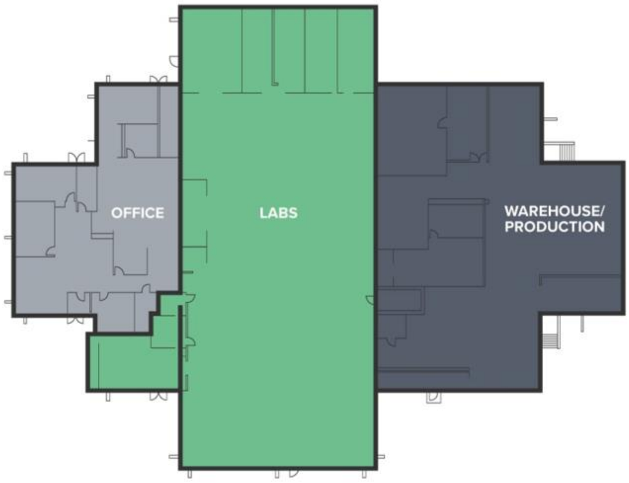
On the other hand, beyond this “in-house” sector category, there is a concept within the global real estate sector that is catching the attention of many investors and analysts in the last few years: the “Industrial & Office mixed” asset class. Commonly known as “Flex industrial” spaces, these properties are mostly characterised by their flexibility and usually contain a mix of both industrial and office spaces, serving therefore for both office and industrial uses. However, they are generally considered as a kind of industrial buildings that can be adapted to many different needs. Several business parks fall into this category. Although currently there is not a unique definition of “Industrial & Office mixed” assets, we could broadly identify and define some of the properties that could fall within this this category as follows: research and development facilities, IT parks and showrooms.

- Research and development facilities: properties used to create, test and improve products. The space often contains labs, offices, testing spaces and some light manufacturing area. The products stored are for testing purposes only.

- IT Parks: properties that keep the equipment which it used to maintain network connectivity, develop hardware-intense IT projects and store data. These spaces tend to be large, usually at least 9,000 square metres. Further, they often require special wiring, security and cooling systems.

- Showroom facilities: properties that combines offices, warehouses and showrooms in one single space. In most cases, at least half the space is used for showcasing and selling products. The most common type of industrial building in this category is a car dealership.

Industrial & Office Space design



Source: Tenantbase

Finally, in order to get a better understanding of the "Industrial & Office mixed" assets, it is worth to explore some their main pros and cons.

Pros:

"Industrial & Office mixed" assets are flexible buildings, that vary in shapes and sizes and thus can accommodate different uses. They are also relatively easy to retrofit depending on the companies' needs and can be rented for shorter periods than traditional industrial assets. The general usage of this type of buildings implies customised office layouts, additional room for expansion and the capability for on-site storage, converting the "Industrial & Office mixed" spaces in useful and valuable assets within the real estate markets. Also due to their flexibility, "Industrial & Office mixed" assets normally accommodate various types of tenants from several industries, allowing for more options when leasing these buildings. Besides that, many companies see this type of assets as an opportunity to use synergies from other sectors, converting these properties into multi-tenant assets.

Regarding their technical appearance, "Industrial & Office mixed" assets usually have slightly lower ceiling clear height (1 to 2 metres clear) and have a larger proportion of office space (around 25%) than a typical industrial building, and therefore they have a higher parking ratio and nicer landscaping than other industrial buildings as well. From an operational point of view: apart from saving costs, "Industrial & Office mixed" assets allow to centralise operations and simplify transportation logistics.

Cons:

Despite all the advantages of the "Industrial & Office mixed" spaces, this type of asset class also presents some handicaps. They are usually not located in central areas and are not well suited to businesses with specialist needs. In addition to the influence of e-commerce, many investors feel that flex industrial properties are riskier investments than warehouses. This is because flex industrial spaces combine office and distribution spaces, with the office component ranging from 10 to 100% of the space. They have always been a real asset class that attracted small manufacturing firms that need an all-in-one office, manufacturing and distribution solution.

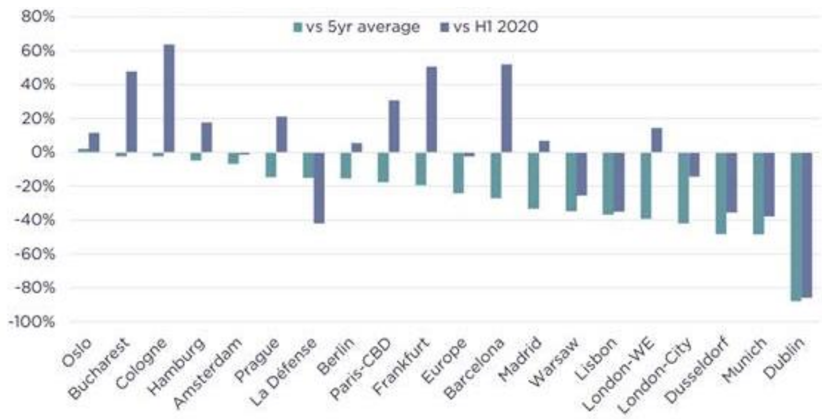
As a conclusion, "Industrial & Office mixed" spaces are becoming more and more popular and the innovation of the real estate industry globally plays a critical role in this development, specifically in urban and suburban areas where a dense and demanding population continues to grow. The changing dynamics in most of the industries, derived from COVID-19 and consequent boom in e-commerce, are forcing multi-channel professionals to explore the "Industrial & Office mixed" spaces, especially retailers that need a combination of retail and distribution spaces. The focus of retailers to speed supply chain process has been a driving force in the increasing demand for warehouse and distribution space, and multi-tenant "Flex industrial" assets have been the beneficiary of this trend. Investing in stabilised, multi-tenant "Flex industrial" real estate can offer an attractive opportunity and investment diversification.

E. THE 2021 EVOLUTION

Finally, after having explored several trends and drivers currently affecting the office property market in Europe, recent data seems to confirm the optimism expressed by several experts and investors around the post-pandemic recovery and support the current performance showed by the listed property companies with exposure to this sector. As the end of Jul/21, the FTSE EPRA Nareit Developed Europe Office Index shows a total return of 16.43% YTD and 38.36% 12-months in Euros.

According to the most recent European Offices Outlook report by Savills, take-up activity in H1-2021 continue showing the good dynamic already observed in some cities in H2-2020 when many mobility restrictions were lifted, now overpassing the levels observed in H1-2020 and even getting close to their own 5-years average. Some cases like Cologne, Paris CBD, Frankfurt, Bucharest and Barcelona are showing a remarkable recovery with annual changes above 30% although some other cases like Dublin and Munich are still behind the general trend. In addition, the London office market seems to witness an interesting recovery, where Q2-2021 figures already overpassed pre-pandemic levels with a total 1.8m square feet according to Cushman & Wakefield[5], representing a 39% increase compared to Q1-2020. However, vacancy rates remain higher than H1-2020 in most of the cases, with Savills expecting some additional increases until the end of 2021 before to see a reversal trend in 2022 supported by a stronger demand following the general economic recovery in Europe. In the same way, Colliers[6] also sees the same expansion in the take-up activity in Europe, with 52% of markets already showing tenant-favourable conditions in Q2-2021 compared to 44% in Q1-2021. Then, market conditions seem to be more favourable for listed office-specialists in 2021 and the coming years, although still subject to some uncertainty.

European Office take-up H1-2021 (% change)



Source: European Offices Outlook. Savills. August 2021.

[5] Property week article, 16/Aug/21: https://www.propertyweek.com/news/london-office-take-up-returns-to-pre-pandemic-levels/5115832.article
[6] EMEA City Offices snapshot Aug/21: https://www.colliers.com/en-xe/research/202108-emea-city-offices-snapshot-august-2021

IV. Key Takeaways

- By the end of May/21, the FEN Global Index series counts 54 office constituents that represent EUR 1784 Bn in Full Mkt Cap and EUR 161 Bn in FF Mkt Cap, also counting 13 constituents classified as Industrial/Office Mix which totalized EUR 38 Bn in Full Mkt Cap and EUR 30 Bn in FF Mkt Cap.

- The proportion of Office buildings in the property portfolio owned by constituents of the FEN Index series has grown significantly int the last decade. Now represents 29.3% of the total property portfolio.

- The Office sector provides some interesting diversification benefits from an asset allocation point of view. The efficient frontier exercise considering European equity, European bonds and European Office LRE shows a diversification potential of 70 bps in terms of annual return for low-risk portfolios (annual volatility below 5%) and 154 bps for high-risk portfolios (annual volatility above 10%).

- The working from home trend has increased during COVID-19, nevertheless, many large companies still foresee a hybrid workforce working between the office, home and “third places”. Workplaces will evolve to address office tenants’ expectations in terms of ‘flexibility’, ‘meeting, cooperation and interaction’ and ‘digitalisation’. COVID-19 also accelerated the demand of “Flex office” spaces and it is expected to continue its expansion.

- In light of COVID-19, occupiers will place a stronger emphasis on building specifications and healthy workplace features as they focus on employee health to preserve long-term productivity. Landlords are expected to respond quickly to increasing tenants’ demand for well-being certified buildings.

- Recent data seems to confirm the optimism expressed by several experts and investors and support the current performance showed by listed property companies. As the end of Jul/21, the FTSE EPRA Nareit Developed Europe Office Index shows a total return of 16.43% YTD and 38.36% 12-months.

- The Office sector is currently adjusting to the new trends in the market, some of them boosted by COVID-19 with different magnitudes depending on the geographical location, economic activity and working space transformation. It is expected to continue its expansion in the coming years although in a slightly different way, bringing some interesting developments and challenges for investors, tenants, governments and property companies.

BIBLIOGRAPHY

- CBRE (2020a). The Future of the Office Survey Highlights September 2020.
- CBRE (2020b) EMEA Occupier Flash Survey, 2020.
- CitiGPS (2020). Technology at Work v5.0 : A New World of Remote Work.
- Colliers (2020a). Flex Forward : The Flexible Workspace Report 2020 EMEA.
- Colliers (2020b). Exploring the post-COVID-19 Workplace.
- Colliers (2020c). Flex Forward : The Flexible Workspace Report 2020 US.
- Cushman&Wakefield (2020). Global Office Impact Study & Recovery Time, Part 1.
- Deloitte (2021). London Office Crane Survey: A Barometer of Business and Developer Sentiment.
- Demetree Real Estate (2021). How Flex Space Is Changing Commercial Real Estate (https://demetreerealestate.com/how-flex-space-is-changing-commercial-real-estate/).
- Eurofond (2020). Working During COVID-19 (https://www.eurofound.europa.eu/data/COVID-19/working-teleworking).
- Green Building Council Australia (2012). Trevor Pearcey House Case Study.
- Harvard T.H. Chan School, et al. (2015). The COG Fx Study: Impact of Green Buildings on Cognitive Function.
- JLL (2020). The Impact of COVID-19 on Flexible Space.
- McKinsey Global Institute (2020). What's Next for Remote Work: An analysis of 2,000 tasks, 800 jobs, and nine countries.
- Savills News (2021). London, Paris and Warsaw office markets appear best value this year (https://www.savills.gg/insight-and-opinion/savills-news/314686/london--paris-and-warsaw-office-markets-appear-best-value-this-year).
- TenantBase Blog (2018). What Exactly Is Flex Office Space?
- ULI&EY (2020). Future of Work.
- Workthere (2020). Global Flexible Office Sentiment Survey October 2020.
- World Green Building Council (2014). Health, Wellbeing & Productivity in Offices.
- World Green Building Council (2016). Building the Business Case: Health, Wellbeing and Productivity in Green Offices.