



Global Research | June 2020

# The future of global office demand

# Contents

---

<b>Executive summary</b>	<b>3</b>
<b>Setting the scene</b>	<b>5</b>
<b>The external environment</b>	<b>6</b>
Office markets, employment and industries	
<b>Function of the office</b>	<b>9</b>
Corporate occupier	
Employee	
<b>Factors shaping the future of office demand</b>	<b>13</b>
Remote working	
Office design	
Technology	
Commuting patterns	
<b>Spatial patterns of office demand</b>	<b>22</b>
Ongoing urbanization	
Distributed urbanization and distributed workplaces	
Office demand in the hyperconnected city region	
<b>Final thoughts</b>	<b>25</b>

# Executive summary

---

Demand for office space is intrinsically linked to the economy; generally in a downturn, office demand drops off as employment levels fall and corporates move into cash preservation mode. The global pandemic has undoubtedly pushed us into a global recession and in the short term this will have a direct impact on office demand. However, in light of the success of wholesale working from home, the question is now being asked – over the longer term, will this be the catalyst for the end of the office?

This is not the straightforward equation it is often portrayed as; increased working from home does not directly equal less demand for office space. There are a myriad of other factors which need to be looked at, including density, financial returns, productivity and technology. Before examining these factors, it is worth taking a step back to look at the function and purpose of the office from both the employer and employee perspective.

From a **corporate occupier perspective** offices provide a physical space to bring people together to coordinate activity, output and performance and to boost creativity. Along with this, they showcase a company's brand and culture and play a key feature in attracting and retaining the best talent. The function of the office will continue to evolve, accelerating trends which emphasize the importance of collaboration and innovation to employee productivity.

From an **employee perspective** the office provides a place for face-to-face interactions that technology struggles to replicate, such as social interaction, face-to-face collaboration, mentoring and managing. Even after the recent success of working from home, employees still state they would like to be in the office for the majority of the week.

Four key factors will have a major role in shaping the future of office demand in both the short and longer term:



## Remote working

There are clear employee benefits to working from home, not least among them is 'no commute' and flexible hours. However, for many people their home living arrangements make working from home a below optimal choice, with its limited space, lack of privacy and/or more distractions. Additionally, employees miss the social interaction that office life brings. Maintaining productivity away from the office over the longer term is also yet to be verified and is likely to be boosted by regular office interaction. Flexibility will be key to employee satisfaction and the balance of office and remote working anywhere will be based around the individual.



## Office design

There is little doubt that COVID-19 is going to accelerate some changes in office design. The most evident is occupational density. The upward trend has gone sharply into reverse as social distancing is adhered to. However, once a vaccine or effective treatment is available, there is likely to be a movement back toward the densities recorded pre-COVID-19, but not all the way, as health and well-being will remain top of mind for occupiers. A greater focus on spaces which emphasize face-to-face interaction is likely as office space is redesigned or repurposed away from individual full-day occupancy desks.



## Technology

Technology on its own is unlikely to have a significant impact on overall leasing demand. Over the short term, the adoption of new technologies will both facilitate remote working and also ensure workers' well-being and efficiency on their return to office buildings. Over the longer term, occupier demand is expected to gravitate toward technology-heavy smart office buildings, reflecting their ability to support companies' environmental, sustainability, health and wellness initiatives. Therefore, reduced demand for lower-quality assets over the longer term seems likely.



### Commuting patterns

The lack of commuting is the most quoted benefit of working from home and it is one of the areas that is causing the most concern on re-entry to the office – particularly in those cities which are highly dependent on public transport. A slower re-entry is likely in many of those cities. Some cities are pushing the benefits of cycling or walking. Over the longer term, face-to-face interaction (both internal and external) is still expected to gravitate toward centrally-located and highly-amenitized urban centers. These factors will underpin demand and the value of urban, transit-served markets over the long term.

The final piece of the puzzle is where office demand will be focused – the **spatial patterns of office demand**. The inherent attractions of cities in terms of economic opportunities, social connections and quality-of-life offer are likely to prevail despite short-term concerns regarding social distancing. The forces that were already transforming our cities prior to COVID-19 will continue to drive change and boost office demand - digitization and automation, the Responsible City and globalization.

The spatial logic of our cities and their surrounds will evolve in response to digitization, new living and workplace preferences, and demand for a more sustainable and resilient urban model. The trend of **‘distributed urbanization’** will accelerate in the aftermath of the pandemic with the fast-track evolution of digitally enabled, hyperconnected networks of cities that revolve around major cities such as New York, Paris and Tokyo.

The rise of the hyperconnected city region will gradually shift the spatial pattern of office demand, pushing it toward a **diverse office market ecosystem** comprising three major elements:

1. Rising demand in livable, well-connected suburbs and small cities
2. A reimagined and increasingly multi-use urban core
3. New clusters of innovation-based activities

The COVID-19 pandemic has been another unforeseen extreme shock to our world with far-reaching consequences over the short and long term. There will be an inevitable correction in the short term as the economic impact of the pandemic flows through to corporate activity. However, over the longer term the office will remain a fundamental part of our corporate culture and will play an essential role in our work and productivity.

Following the pandemic, there will be an inevitable correction in the short term for office space as the economic impact flows through to corporate activity. The flexibility to work from home will be seamlessly integrated into working life, benefiting both employees and employers alike. A focus on well-being and some de-densification, along with improvements to design to encourage the interaction that is difficult to facilitate at home, are all elements which may change and that are likely to offset a decline in space as a result of increased homeworking. Office space will continue to evolve; it is far from over and, as result of this crisis, is arguably going to play an even greater role in driving corporate well-being and productivity.



# Setting the scene

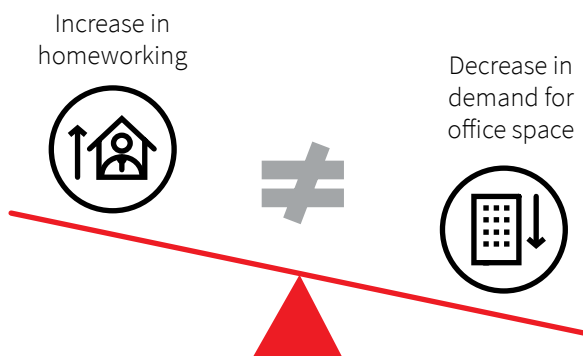
---

Working from home has quickly become a ubiquitous part of corporate life for many people across the globe, with companies quickly adapting to the pressing need for employees to 'shelter in place'. The successful implementation of large-scale homeworking and widespread adoption of technologies for remote working are now causing corporates to re-evaluate their future space requirements. Additionally, a number of high-profile employers have made bold statements regarding homeworking being a much bigger part of their long-term corporate occupation plan. So, it leads to the emotive question: 'Is this the catalyst for the end of the office?'

The office is not finished - this would be a simplistic conclusion based on early and incomplete evidence. Although homeworking has been more successful in the short term than many expected, the office provides a much broader role in company culture and productivity than can be examined in a few short months. Questions regarding the purpose of the office, its role in corporate culture and employee preferences all still need to be answered. The office has long provided a place for concentrated work and increasingly a place for collaboration, connection, innovation and social interaction, and the desire for these characteristics has not diminished.

In the short term, most corporates are significantly reducing office density of existing portfolios and continuing to embrace remote working until there is a vaccine or the risk of infection has receded considerably. As yet, few appear to be taking this opportunity to reduce footprints, although this may increase as occupiers reach lease expiry dates. In the longer term, the situation is much more complex and we are seeing the acceleration of trends already in evidence over the past few years, such as increased employee flexibility, faster adoption of remote-working technologies and the importance of innovation. Ultimately, the needs of employees and companies will shape the quantum, design and locations of office space required, which will be balanced by the need for financial prudence. In this paper, we analyze these broader questions and offer some thoughts on the future of office demand.

## The current discussion is too simplistic...



## Assessing future office demand will be more complex, with a broad mix of factors at play...

- Employment levels
- Public health situation
- Government guidelines
- Real estate cost v talent cost
- New legislation
- Technology
- Return on investment
- Density of occupancy
- Economic growth
- Innovation needs
- Company culture
- Footprint geography
- Space design trends
- Productivity metrics
- Sharing v dedicated
- Commuting behavior

# The external environment

## Office markets, employment and industries

### Link between employment and office demand

That office market demand follows economic cycles is undeniable – there is a strong relationship between economic growth and the level of office demand in markets across the globe. Looking globally, the relationship is evident with a sharp drop in net office demand during the Global Financial Crisis followed by a fairly swift recovery.

A significant recession is forecast in 2020 with a full recovery taking time, but risks exist around this scenario. The OECD has released a double-hit scenario where there is a second wave of infections before the end of 2020 substantially prolonging the impact and recovery time.<sup>1</sup> In either scenario, unemployment will rise sharply and employment growth will be negative. This implies a slowdown in office demand over the recovery period similar to other downturns, but a bounceback is forecast over the longer term.

### Global net absorption and GDP growth



Source: JLL, Oxford Economics, June 2020

\* Q1 2020 net absorption

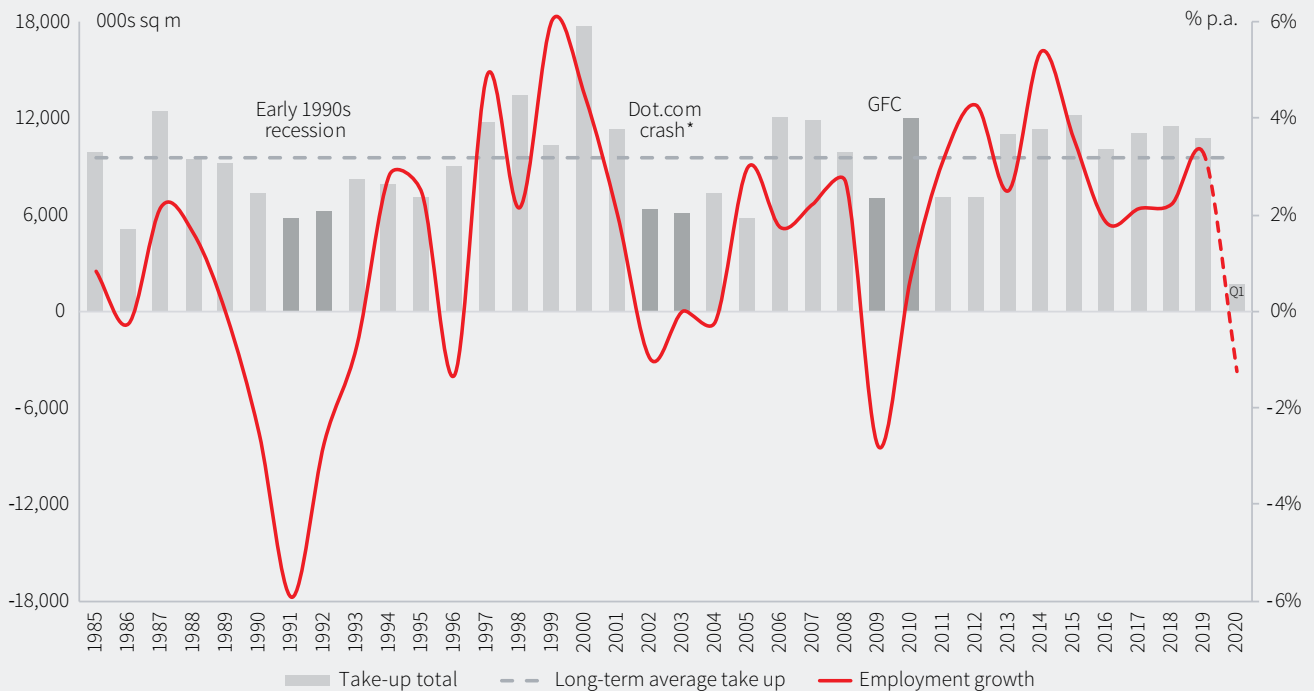
<sup>1</sup> OECD Economic Outlook, June 2020



## The London office market

The London office market is one of the most global and transparent office markets, with the longest time-series of data emphasizing this relationship. Downturns in the economy and falling employment levels have been associated with lower volumes of take-up across the last three economic cycles.

### London take-up and total employment growth, 1985-2020



Source: JLL, Oxford Economics, June 2020

\* Not a technical recession in the UK

2020 - property data refers to Q1 2020; employment growth is a forecast

**Office-based employment and industry risk**

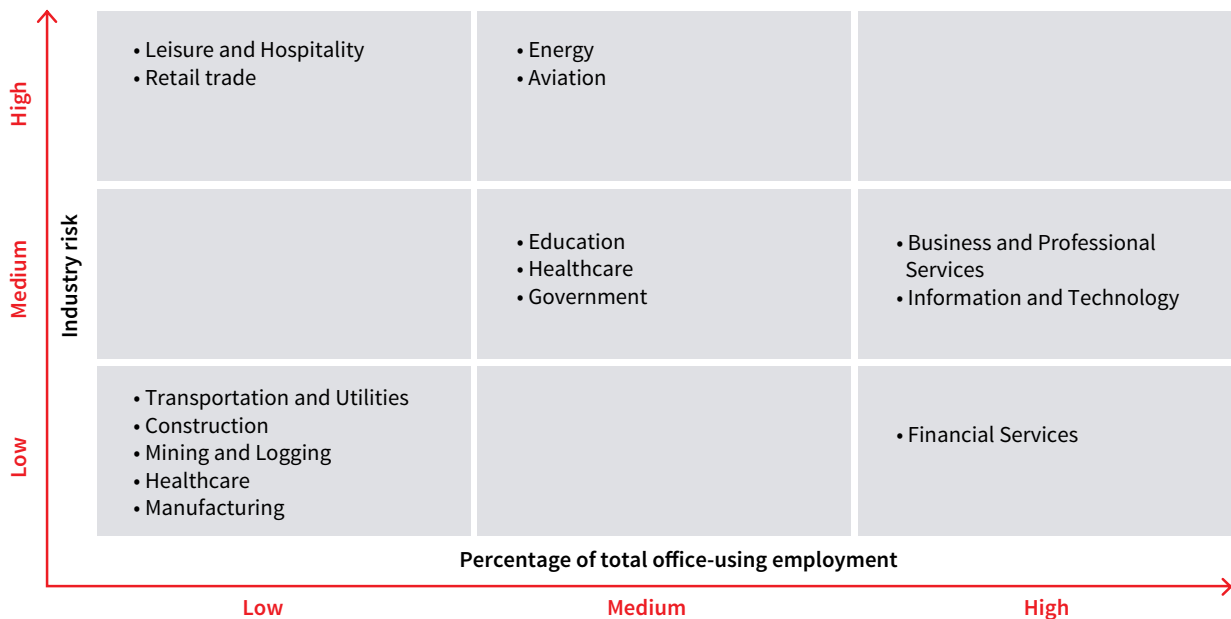
During a downturn there are clear risks of structural changes or reallocations of office-based jobs. However, in the longer term all industries should experience pro-cyclical job growth as the macroeconomy recovers, with positive flow-through effects to demand for office space. But understanding the potential risk in individual industries will take on increasing importance when forecasting future office demand, even as the economy transitions from contraction to recovery to expansion.

Financial activities, business and professional services, and information services constitute the bulk of office-based employment. However, office-using employment does not end at the boundaries of these industry groupings. Other industries, seemingly devoid of office users, also contribute to demand for space. Even manufacturing and construction

have employees who work in an office, even though they represent a small percentage of office demand. Therefore, when thinking about the future of office-based employment and demand for office space, it helps to think of industries in a matrix of two variables: the concentration of office-based employment within an industry and the risk that industry faces in a post-COVID-19 world.

The matrix ranks industries in three concentrations – low, medium and high – representing the share of office employment accounted for by each industry. It ranks them similarly by their industry risk (and thus risk to office-using employment) in a post-COVID-19 world. That risk stems from structural changes at the industry level, which could dampen demand; essentially the likelihood that office job losses will become permanent and/or that these jobs will return but not to an office on a full-time basis.

**Office demand matrix**



Source: JLL, June 2020

**Overall implications for the future of the office**

**Short term:** The cyclical downturn triggered by the COVID-19 pandemic will undoubtedly have an impact on short-term demand for office space, as rising unemployment levels and falling output flows through to demand for office space. Some sectors may be more affected by the immediate impact of lockdown measures (e.g. leisure and hospitality), while others may be more resilient (e.g. healthcare).

**Long term:** Procyclical growth should provide a boost for the office market as the economy transitions toward a recovery. Risks remain around the timing of the recovery and whether a double-dip recession will occur following further outbreaks of the virus, though once a vaccine or treatment is made widely available there should be a resurgence in demand. The speed and magnitude of the recovery will vary by industry sector, but sectors based around the innovation and knowledge economy are likely to be among the first to rebound.



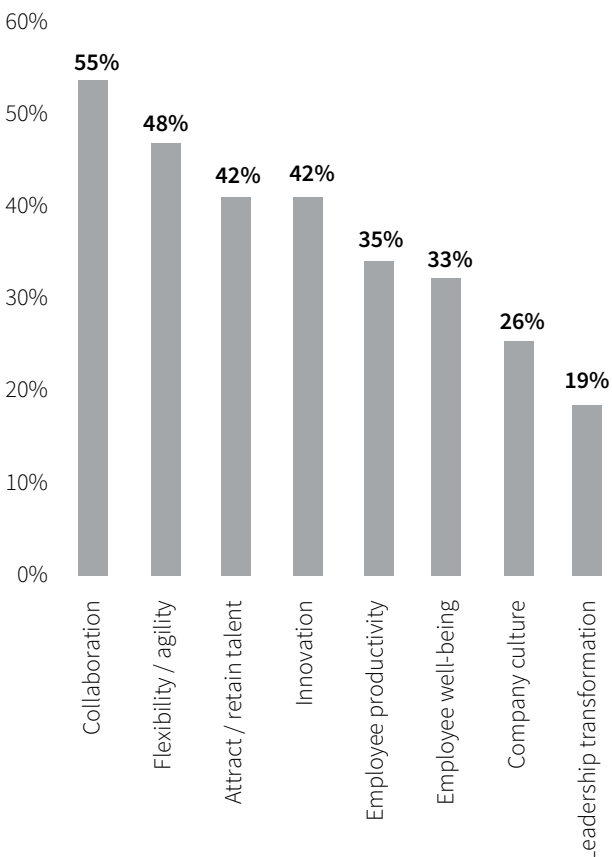
# Function of the office: Corporate Occupier

## Changing requirements of office occupiers

### Implications from the innovation economy

Offices provide a physical space for companies to bring people together to coordinate activity, output and performance, and to boost creativity. Company expectations from office space have changed considerably over time, with automation, outsourcing, offshoring and workforce mobility just a few of the drivers that have recast office portfolios. In recent years, the knowledge and innovation economy has played an increasingly important role across the globe, and offices have become central to its development and growth. The continued growth of these trends and many others will see that office requirements will continue to shift dynamically.

### Desired outcomes from enhancing the employee experience



Source: JLL, June 2020

### The future shape, purpose and function of offices

As companies begin the process of returning to the office, some are now questioning the future shape, purpose and function of the office. However, corporate culture is created and strengthened when people come together in person: the office is not finished, it just needs to be adapted as an ecosystem.

### Collaboration, innovation and brand

The design and purpose of the corporate office environment has also adapted over recent years to support corporate objectives of collaboration, agility and innovation, and we anticipate an acceleration of this trend: a greater mix of experiential spaces toward supporting teams and collaboration, as well as heavily amenitized social or client space which acts as a showcase for a company's brand and culture. Full-day desk occupancy together with individual-focused and process-driven work will likely decline as a proportion of space as some of these requirements shift to a homeworking environment. Ultimately, the office will remain the key physical space, although it will be integrated within a wider corporate ecosystem.

### Talent attraction and retention

Corporate perceptions have shifted away from office real estate as purely a static expense toward it being a strategic driver of transformation and enterprise performance. As such, the workplace has become part of the employee value proposition as companies have competed to secure the best talent. Moreover, the role of the office when it comes to mentoring, team spirit and a strong corporate culture has proven crucial to employee loyalty, commitment and ultimately talent retention. Real estate costs have long been a critical factor in decision-making; however, real estate costs are typically only around 10%-15% of people costs. We expect the drivers of talent, experience and employee health and well-being to continue to shape office demand in the future, albeit with an evolved focus.

### The financial impact of COVID-19

Next to safety precautions, economic-driven changes are most likely to be the primary engine behind decision-making in the short term. Corporates are looking to balance competing priorities in integrating physical distancing while minimizing the costs of redrawing floorplates. Any significant capex projects will run counter to near-term objectives around cash preservation. Many companies will fix their attention on cost cutting to improve liquidity and put themselves on a more solid path of profitability. For that reason, we are unlikely to see a net increase in real estate spend in the short term.

### Overall implications for the future of the office

**Short term:** On initial re-entry, the function of the office will be to support the people who cannot work effectively from home or those who want to be in the office, while providing and maintaining a safe and healthy environment. Demand for new office space may temporarily reduce as occupiers look to reconfigure existing space and renegotiate extensions to existing leases. Furthermore, any capex will be under heightened scrutiny for the foreseeable future, and any demand for new spend is expected to be focused around pre-built space on flexible lease terms.

Some corporates will look to free up cash, but much of this will depend on lease events and will therefore not cause a supply shock in the short term. Elevated levels of sublease space coming to market will push up vacancy in some markets; however, the quantum of space added to the market will probably be restrained as unfavorable market conditions are projected for the next six months. The majority of pre-COVID requirements have now been put on hold with some being canceled.

**Long term:** The function of the office will continue to evolve, accelerating trends which emphasize the importance of collaboration and innovation to employee productivity. The changing needs of office occupiers are unlikely to have a considerable impact on the aggregate level of space required, although the function and design of their space will change. More exactly, some companies may reduce space requirements, but job creation and de-densification is likely to balance this out, so at the aggregate level the impact is minimal. The office will enable face-to-face interaction, while remote working and technology will become an embedded part of flexible corporate life.



# Function of the office: Employee

---

## The rise of the liquid workforce

### Increasingly distributed corporate ecosystem

The work that companies do and the way they do it has changed significantly over the past decade. A contingent and distributed workforce of outsourced, offshored or contingent workers has become more and more common, with implications for more diverse corporate office portfolios. The potential upsurge in remote working will be the latest factor to drive dispersion and mobility in where office work is conducted.

### Mobility, flexibility and agility

Employee mobility both within and outside the office has been an accelerating trend in recent years.<sup>2</sup> The

proliferation of cloud computing, VPNs, superfast Wi-Fi, and 4G has enabled office-type work to be carried out anywhere. This trend is now likely to gather speed - with 5G connectivity enabling even more efficient remote working.

Our recent global survey of 3,000 office users shows a strong affinity for the office, although with an increased preference for an integration of more working from home – averaging around 1-2 days a week.<sup>3</sup> Employees have clearly missed the human and social interaction that the office facilitates. The office also provides an important facilitator to a clear routine and distinction between personal and professional lives.

## What employees miss most about the office



Source: JLL Human Performance Survey, May 2020

---

<sup>2</sup> Workplace Powered by Human Experience, JLL, 2017

<https://www.jll.co.uk/en/trends-and-insights/research/workplace-powered-by-human-experience>

<sup>3</sup> JLL Human Performance Survey, May 2020

### Lessons from the growth of coworking

Over the last decade this mobility and flexibility, combined with a desire for experience-led office design, manifested in the dramatic rise of coworking and flexible space. The sustained demand seen for this type of space provides some useful evidence on the underlying appeal of office space. Feedback regularly focuses on the sense of community and how the value of the network benefits individuals and teams working in a shared physical space. While the flexible space models of the last cycle will undoubtedly evolve and the market will consolidate and transform, the demand drivers that led this boom are unlikely to disappear.

### Employee productivity and performance

Data from a variety of sources increasingly points to the direct impact of the workplace on individual productivity. However, many offices do not deliver the optimal mix to drive employee performance. A JLL survey of over 7,000 office users globally<sup>4</sup> identified concerns around workplaces:

**60%** of employees are not fully engaged at work

**50%** say their working environment does not enable them to work effectively

**66%** lack spaces where they can be creative and feel inspired at work

This underlines the potential to design and curate an office experience that maximizes employee performance. When respondents were asked which workplace environments have the biggest impact on their productivity, they highlighted, in order of impact: coworking spaces, incubators and accelerators, creative spaces and community space. In addition, 85% of employees said that it was “important” or “a priority” that their workplace offers spaces for concentration.

When asked which spaces that they did NOT currently have access to would have the greatest impact on productivity, they highlighted, in order of impact: spaces dedicated to health and well-being, community space, and space for collaboration. Health and well-being is a growing concern for employees and employers alike and one which is only likely to increase in the coming years.

The current COVID-19 crisis is reviving these trends and amplifying them. All this points to a sustained long-term employee appetite for effectively designed office space as part of an increasingly integrated, liquid and flexible real estate strategy.

### Overall implications for the future of the office

**Short term:** Employees will naturally be reluctant to return to the office until COVID-19 health and safety concerns are fully mitigated. Corporate occupiers’ ability to instate more flexibility regarding working hours and instill a sense of safety will help to encourage workers back to the office. Well-being will remain a key focus and many companies will operate offices below capacity to allay these concerns, while technology will be used to facilitate meetings and collaboration.

**Long term:** Employees are proving keen to return to the office once a vaccine or treatment is available. At the same time, they are looking to offices to provide human interactions in a way that technology cannot replicate. In addition to the office being a place for those unable or unwilling to work from home, social interaction, face-to-face collaboration, mentoring and managing are all elements where office space provides a superior offering. Maintaining productivity away from the office over the longer term is also yet to be verified and is likely to be boosted by regular office interaction. Flexibility will be key to employee satisfaction and the balance of office and remote working anywhere will be based around the individual.

<sup>4</sup> Workplace Powered by Human Experience, JLL, 2017  
<https://www.jll.co.uk/en/trends-and-insights/research/workplace-powered-by-human-experience>

# Factors shaping the future of office demand

---

While the function of the office is continuing to evolve, there are other factors impacting what the future of office demand will look like in the coming years. We have focused on four key factors which will have a major role in shaping the future of office demand in both the short and longer term.

We have also analyzed how these demand factors and the ongoing influence of changes in urbanization and urban design may impact the locations of companies' spatial footprint over time.



**Remote working**



**Office design**



**Technology**



**Commuting patterns**



# Remote working

## Is working from home the ‘new normal’?

### Working from home turns mainstream overnight

The impact of the pandemic on global office markets was immediate, with working from home becoming the norm for the vast majority of office workers. The successful adoption of homeworking has caused employees and employers alike to question the future of the office. Can employees become as productive working from home and, if so, what does this mean for the future of the office? Although necessity is forcing many of us to test this theory, the answer is a lot more nuanced.

### Physical distancing highlights the value of human interaction

With most office workers globally confined to working from home, the reasons for commuting to the office are becoming more and more clear. As previously stated, two of the three top reasons for missing the office are around social interaction – the long-talked-about trend of collaboration and innovation is clearly backed up by our survey evidence. This suggests in the long term that working from home will cause diminishing returns as interaction is key to idea generation and team building.

Although technology is much improved from the failed working-from-home initiatives in the 1990s, on its own it does not create a credible substitute to actual human interaction. Productivity through face-to-face interaction will increasingly be the purpose of the office and will shift the risk-reward balance firmly toward a return to the office in a post-COVID-19 world.

In addition to missing the office, for many people their home living arrangements make working from home a below optimal choice, with its limited space, lack of privacy and/or more distractions. This rings true especially for the younger generation, with global JLL survey data indicating that 64% of millennials are most eager to return to the office, the highest percentage of any age group. Human interaction, collaboration and informal communications are more important to over 50-year-olds, while the professional setup was most missed by millennials. Furthermore, gateway cities are often expensive residential markets which leads to smaller homes. Working from home will not provide a practical longer-term option for some.

### Most missed elements of the office

	Average	Under 35s	Over 50s
Human interaction, socializing with my colleagues	44%	37%	54%
Collective face-to-face work	29%	28%	34%
Informal communications	25%	22%	29%
An environment that helps me to focus on my job	23%	25%	17%
An ergonomic workstation	21%	23%	17%
The possibility to work in different spaces and choose the most suitable space for each task	14%	16%	9%

### Flexibility and control

Prior to the pandemic, flexibility in terms of when and where people worked was an increasing trend, with a combination of working from home and alternate sites such as flex space. The recent mass work-from-home experiment has accelerated this change and provided most workers with firsthand experience of the pros and cons. A reduction in commuting is unsurprisingly the major benefit, followed by greater flexibility. These also speak to a more distributed workforce, opposed to purely homeworking.

### Top benefits of working from home



**49%**  
Less or no  
commute



**45%**  
Flexible  
hours



**31%**  
Enhanced  
work-life  
balance

Source: JLL Human Performance Survey, May 2020

A recent JLL survey showed that, prior to COVID-19, 69% of people in EMEA worked from home less than once a week.<sup>5</sup> Now just 11% expect to do so in the next two years. The pandemic is proving to be a catalyst for the acceleration of more widespread adoption of flexible working as part of a balanced employee offering. Instead of working from home being an added benefit to some roles, it is likely to be a standard element of most.

These survey results back up the evidence we are witnessing across the globe. On average, we expect working from home to increase to an average of 1-2 days per week, although the rate of adoption will depend heavily on geography, sector, individual roles and individual employee circumstances. Roles in which collaboration, communication, innovation and creativity are crucial will often be focused around the physical office environment. However, back office, admin and support roles may be more likely to see a more broad-based shift to working from home.

### Overall implications for future office demand

**Short term:** Working from home will remain an option for many employees, reflecting safety and well-being concerns in the absence of a vaccine or an effective treatment. However, we are seeing tentative steps back to the office, with certain functions and sectors returning before others. Reflecting the need to adhere to social distancing, utilization rates remain low, often maxing out at 50%, although this is heavily dependent on the location and how far lockdown has eased. Cultural expectations of office attendance may push utilization rates back up quicker in some markets than others. Leasing volumes are likely to be impacted in the short term as companies opt for higher levels of homeworking instead of adding new space to their portfolios. In the U.S. we have observed a rise in subleasing availability. Corporates in EMEA and Asia Pacific seem to be holding to existing footprints for now.

**Long term:** Work from home or, more broadly, work from anywhere will gather pace, but more to accommodate employee preferences for flexibility than as a far-reaching and permanent decline in office consumption. Wholesale working from home, as per some of the more dramatic news headlines, will not be the 'new normal' in a post-COVID-19 world. Most employees welcome the flexibility to work from home but have a desire and/or need to be in the office for the majority of their workweek. In the long term, an increase in homeworking will potentially drag office demand down slightly on pre-COVID-19 levels, although other impact areas, such as changes in office design, are likely to offset this.

<sup>5</sup> JLL Human Performance Survey, May 2020 – 3,000 survey respondents globally

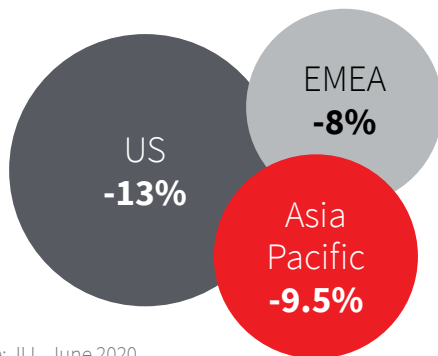
# Office design

## Changing density and design

### De-densification in the short term

Workplace design has shifted considerably over the past couple of decades. Office-intensive models with fully assigned workstations have made way for unassigned workstations complemented by shared space and amenities. Consequently, floorspace densities and desk utilization rates have risen, with this trend even more pronounced in major gateway cities. Desk sharing and ratios of less than one desk per employee are now commonplace. The rationale behind this shift is threefold - collaboration, employee experience and cost/ROI (i.e. productivity).

### Change in office density, 2010-2019



Source: JLL, June 2020

COVID-19 has put into question the appeal of highly dense, large, open-plan offices. In China, the return-to-office rate varies across cities, with many corporates implementing de-densification protocols either through split teams, increased homeworking, light-touch space redesign or, in some cases, the acquisition of short-term (flex) space. On average, companies globally indicate that they are looking to avoid exceeding occupancy levels of 50% in major cities until a vaccine is successfully implemented or local guidelines are relaxed.

### Variation between sectors

Occupational density varies widely across sectors, reflecting factors such as building (design) preference, workforce mobility and digitization, as well as requirements around security and privacy/confidentiality. Some sectors will struggle to move toward lower-density occupation and may therefore encourage higher levels of homeworking or will lease additional space.

For example, a share of the coworking industry will require radical space redesign to address social distancing at an existing average of 5-10 sq m per person, while the legal sector (30-35 sq m per person) will find this shift less challenging.

### Industry density by sector

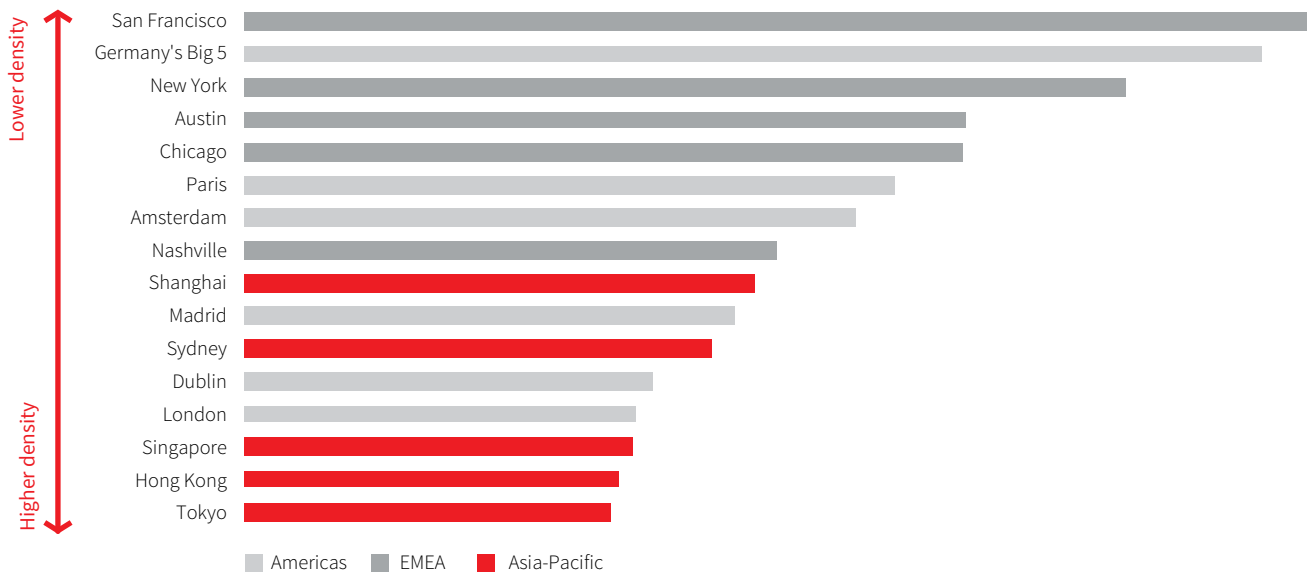


### Higher-density markets more resilient

Similarly, occupational density differs significantly across geographies due to local legislation and cultural norms, along with factors such as cost, space availability and sector specializations. For example, German employers provide employees with more than twice as much office space as in London and Tokyo. Therefore, the switch to lower density will be more problematic for some markets than for others. Ultimately, the higher density markets will need more space to accommodate the same staff and therefore have a stronger driver balancing out the decline in demand on the back of increased working from home.



## Density: office space per worker across global cities



Source: JLL, June 2020

\*U.S. data is a calculation based on occupied stock and office employment

### Technology cannot fully replicate in-person interaction

Even before the pandemic, we had seen the need for more enhanced office design, with workers indicating that spaces dedicated to health and collaborative/community uses were most important to them.<sup>6</sup> This trend is likely to accelerate. The focus of the office will be to support employee interaction: providing face-to-face contact, group meetings and collaborative space – all tasks which technology cannot replicate. The number of desks per floor might decrease as collaboration spaces become more vital.

Anecdotal evidence from occupiers indicates a desire to redesign space, but most are not planning to offload significant amounts of space in the short term. For those looking to downsize their footprint, they may reinvest potential savings into new types of space and amenities for their employees.

### Workplace design legislation unlikely to impact post-COVID-19 requirements

Most hastily-produced workplace design guidance produced since the pandemic relates to the reduction of office density in light of social distancing, along with hygiene, ventilation and air filtration to provide healthy working environments. As yet, measures implemented on office usage and de-densification are temporary and

in the form of guidance, as opposed to being entrenched in mandatory legislation. Although it is still early, it appears that there may be limited impact on the post-COVID-19 legal requirements of the office, with corporates themselves accountable for the safety of their employees. Health and well-being will remain in the spotlight and any guidelines put in place around future contamination mitigation are expected to result in more relaxed density.

### Overall implications for future office demand

**Short term:** A shift to considerably lower-density office occupancy will expand demand for space in some cases, but most companies will realign through increased working from home, split teams and light-touch redesign. Other options include the use of satellite and flexible offices.

**Long term:** Following a vaccine, effective treatment or significant change in local guidelines, we expect that the dedicated desks and extreme de-densification to ease from initial re-entry levels. However, we do not anticipate density to tighten back to pre-COVID-19 levels either. Relaxing seating densities will enlarge demand for office space in some markets. While offices are likely to need fewer full-day occupancy desks per employee, a greater focus on interaction will require new collaborative spaces, which will also offset some of this demand decline.

<sup>6</sup> JLL's 2018 occupier research, Workplace Powered by Human Experience, JLL, 2017

# Technology

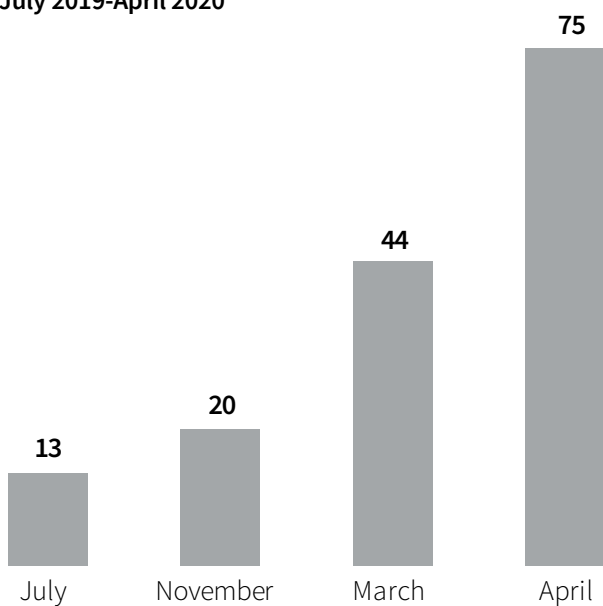
---

## Company efficiency and productivity

### New technologies support remote working

Corporate technology has been tested, and in many cases rapidly improved, following the mass test of homeworking that ensured ongoing productivity and efficiency. Online technologies such as Microsoft Teams and Zoom have seen unprecedented growth in users. JLL survey results indicate that just 23% employees did not feel sufficiently tech-ready for the change to homeworking, and anecdotal evidence indicates that many corporates have successfully maintained productivity levels thanks to online collaboration tools, video conferencing and cloud-based drives.<sup>7</sup>

**Microsoft Teams daily active users (millions), July 2019-April 2020**



Source: Business Insider, April 2020<sup>8</sup>

Increased adoption of technologies will enable companies to implement more cost-effective and nimble real estate strategies, such as a more distributed workforce. The same online productivity tools that allow employees to work remotely can also be leveraged to move jobs out of more expensive markets as long as high-speed internet is available. Jobs may be moved to lower-cost, talent-heavy markets domestically and we may see a rise in offshoring.

### Acceleration of proptech adoption

The COVID-19 pandemic has led to an acceleration in the adoption of proptech in some markets, with building owners and occupiers seeking technology applications to ensure the health and safety of their workforce and buildings. For example, digital office space management, optimizing the limited capacity available, and access to office buildings via touch-free facial recognition technology. Concerns around data privacy in some countries, where the legislative environment around data privacy as well as cultural attitudes might be relevant, are likely to result in a more cautious uptake even as proptech becomes more widespread. COVID-19 is also expected to lead to more monitoring of 'building health' – access to metrics on light, temperature, building ventilation, air filtration, cleaning, etc.

---

<sup>7</sup> JLL Human Performance Survey, May 2020

<sup>8</sup> <https://www.businessinsider.com/microsoft-teams-hits-75-million-daily-active-users-2020-4>

### How smart buildings are shaping office demand

Smart office buildings are becoming increasingly common in many cities globally. Smart office buildings use automated processes to control buildings operations, from air conditioning through to security. Sensors, actuators and microchips all gather data to help owners and occupiers monitor and improve asset reliability and performance. Key outcomes are the reduced environmental impact of the building as well as improved space utilization and optimization.

### Improved business processes and efficiencies

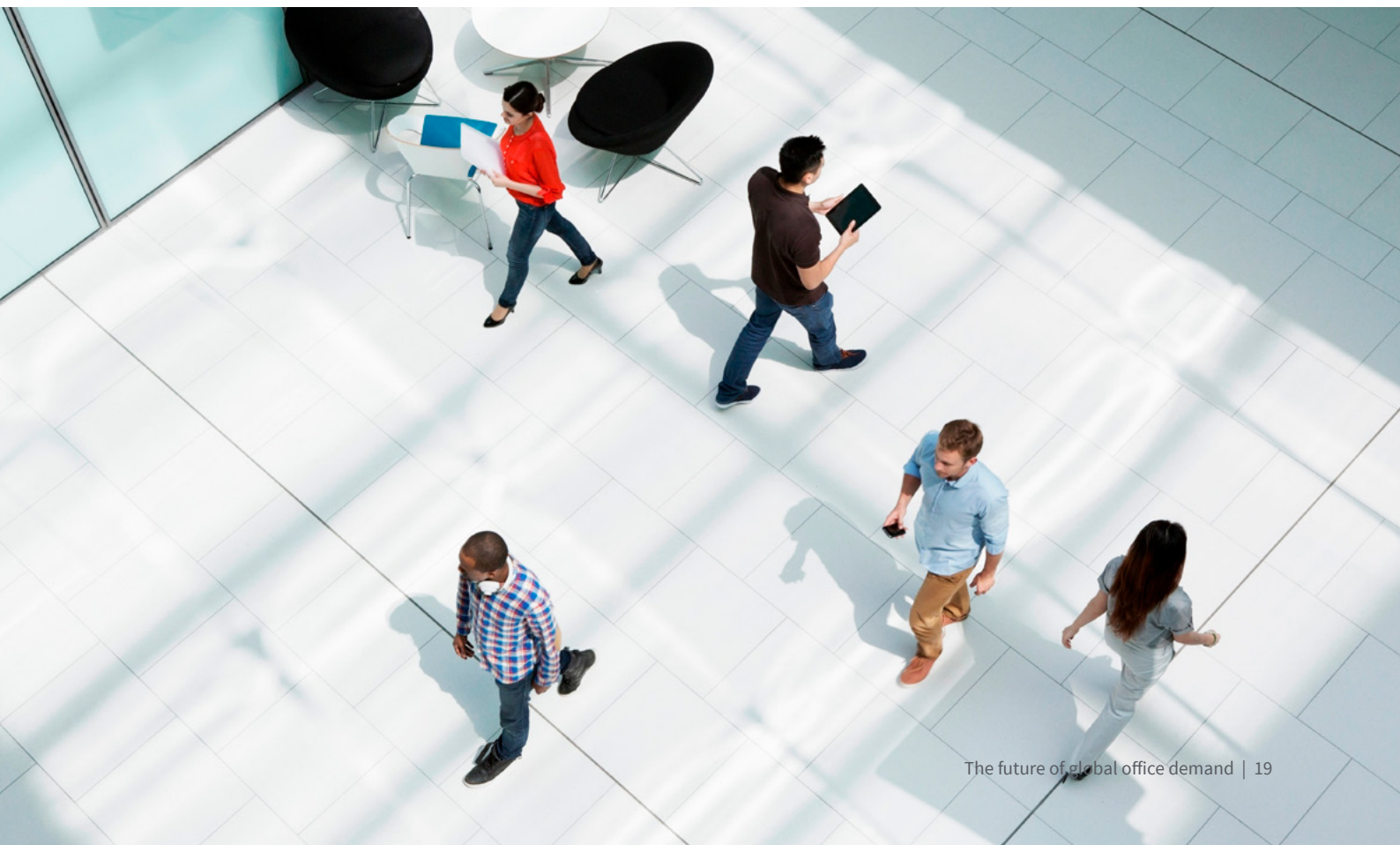
In terms of office design, smart buildings can help optimize office layouts. Collaborative versus non-collaborative areas can be optimized, as can the number and size of meeting rooms; so too the best location of different business functions. Integration of IoT in an occupier's systems and building operations can substantially improve processes such as climate and lighting optimization, and desk and meeting-room booking systems.

This shift toward a fully integrated, tech-enabled and connected network is progressively allowing for 'big data' analysis. The initial benefits of buildings' technology were the ability to monitor energy and water usage, but the number of use cases is growing significantly. In light of the pandemic, uses such as being able to know where in the office is currently best for 'quiet' work and when to avoid peak lift traffic will become increasingly relevant.

### Overall implications for future office demand

**Short term:** Technology on its own is unlikely to have a significant impact on the overall volume of leasing demand. The adoption of new technologies will both facilitate remote working and also ensure workers' well-being and efficiency on their return to office buildings.

**Long term:** A meaningful shift in occupier demand is expected in relation to building infrastructure. We believe demand will gravitate toward smart office buildings and space over time. Buildings with more advanced technology are better suited to support companies' environmental, sustainability, health and wellness initiatives, and they offer the employees who work in them a better overall experience. Therefore, reduced demand for lower-quality assets over the longer term seems likely.



# Commuting patterns

## New challenges with transit

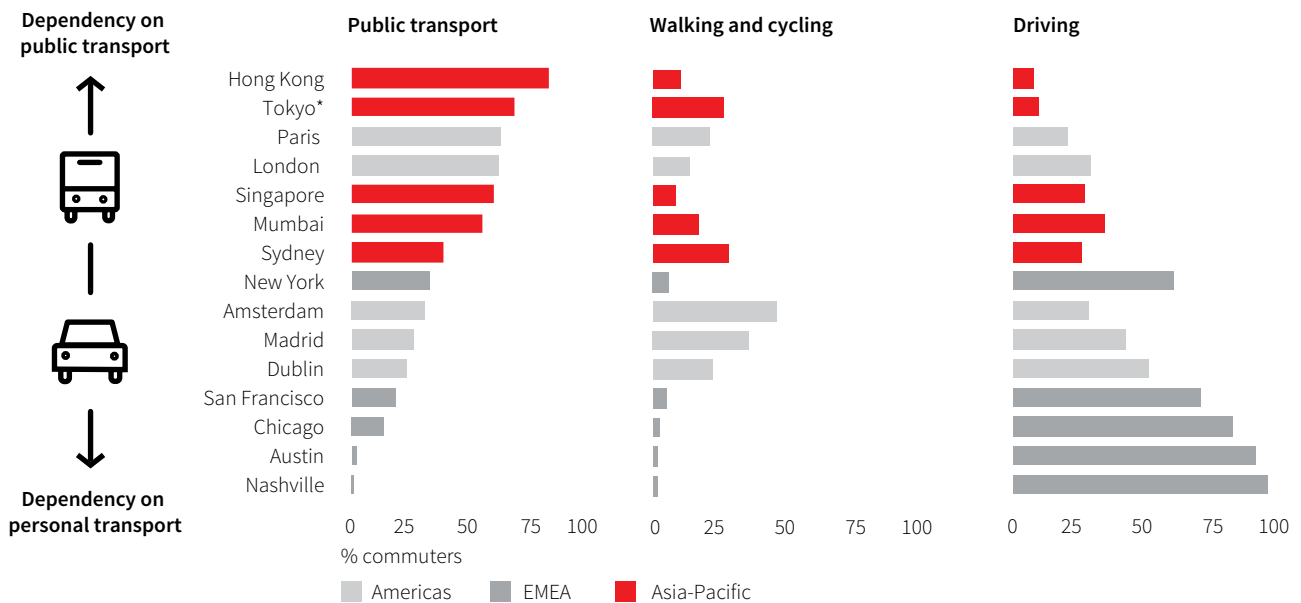
### Safety and well-being concerns surround commuting

With most office employees working from home, avoiding the time, expense and the environmental impact of daily commutes has been the main benefit of the coronavirus pandemic. At 49% of global respondents, “less or no commute” is the highest reported impact employees have enjoyed when it comes to working from home.<sup>9</sup>

As companies evaluate strategies for reopening their workplaces, a larger issue transpires: how will employees safely commute to their workplace? The added health risk of traveling in crowded trains and buses is among the greatest impediments for businesses returning to normal

operations. As a result, companies may offer more flexible working hours to avoid busy commuting times. A recent U.S. JLL survey indicated that commuting via public transit is the leading concern among office employees for their re-entry to the post-COVID-19 workplace.<sup>10</sup> Many concerns have been raised by those who rely on public transit to get to work on issues ranging from cleaning and sanitation to interpersonal interaction and rider density. Due to these concerns, 29% of respondents that previously took public transit now indicate they would prefer to take another form of transportation. This could have significant implications for returning to the office – at least in the short term.

## Commuting methods across across global cities



Source: Census data, various national statistics offices, JLL

\*Tokyo cycling data includes motorcycles

<sup>9</sup> JLL Human Performance Survey, May 2020

<sup>10</sup> JLL U.S. workplace experience survey, May 2020

Many city governments have encouraged a change in commuting behavior in recent years, with a particular focus on making cities more accessible to cyclists and pedestrians. London, for example, is actively promoting cycling as a transport method and has invested considerably in a supportive infrastructure, tripling the cycle network between 2016 and 2020 to 162 km. COVID-19 will significantly accelerate this trend with many cities already rolling out new cycle lanes and wider pavements to accommodate the increasing demand for commuting alternatives.

### **The path forward**

Each global region has its own recovery timeline depending on prevailing public health conditions and other variables. In all cases though, mass transit will be essential to re-entry and economic revitalization. Transit services will need a healthy mix of short-term solutions and longer-term strategies to effectively reopen their economies, restore values of urban real estate and ensure lasting success.

### **Future office demand implications**

**Short term:** In an environment of social distancing, aversion to public transit could have a negative impact on commercial real estate in submarkets that rely heavily on mass transportation – at least over the short term – until a vaccine or therapeutic is discovered to mitigate health risks. In particular, this could impair gateway-city performance over the near term.

**Long term:** Although dense, urban, transit-served markets will probably face near-term pressures (exacerbated in the U.S. by recent civil unrest), this situation is likely to evolve and eventually experience a return to normality. A cycle of pushback on suburban office buildings that necessitate commutes by car remains out-of-sync with the living preferences of many young, urban-dwelling, creative-class employees, as well as the global sustainability agenda. Additionally, internal collaboration and innovation – plus external interaction with clients and prospects – often requires face-to-face settings, which naturally gravitate toward centrally-located and highly-amenitized urban centers. These factors will underpin long-term demand and the value of urban, transit-served markets over the long term, reinforcing their historical position as preeminent destinations for office investment.



# Spatial patterns of office demand: Ongoing urbanization

---

## Cities will survive and thrive

### Inherent attractions of cities will prevail

Some commentators are speculating that urbanization will be interrupted or even go into reverse. After all, COVID-19 strikes at the heart of what cities are all about – togetherness, connectivity, shared services and shared spaces. Yet historic events have shown that cities are remarkably resilient and can bounce back from disruption stronger than ever, with new purpose and energy. The inherent attractions of cities in terms of economic opportunities, social connections and quality-of-life offer are likely to prevail over the longer term, providing new sources of demand for commercial office space across the urban ecosystem.



Source: JLL, June 2020

The forces that were already transforming our cities will gather pace:

### Digitization and automation:

Fast-tracked digitization will stimulate innovation in the use of technology, with increasing demand for accurate and just-in-time data, especially relating to health, mobility, space usage and energy efficiency. Office buildings will become smarter and urban tech will come of age.

### The Responsible City:

The greater awareness of the fragility of our society and ecosystem will encourage cities to double down on measures to create more sustainable and inclusive cities. The strategies of pioneering cities are prioritizing climate resilience, the circular economy and an intolerance of inequality. Office workplaces and policies will need to echo these themes.

### Globalization:

The pandemic has highlighted the brittleness of global supply chains. While global connectivity and scale are still critical, local/proximate resources, production and supply chains will be increasingly important from a city resilience and productivity perspective. New opportunities will emerge for some cities to benefit from re-localization of production, particularly in the key areas of healthcare and technology.

# Distributed urbanization and distributed workplaces

## Evolving spatial logic of cities

### A sustainable and resilient urban model

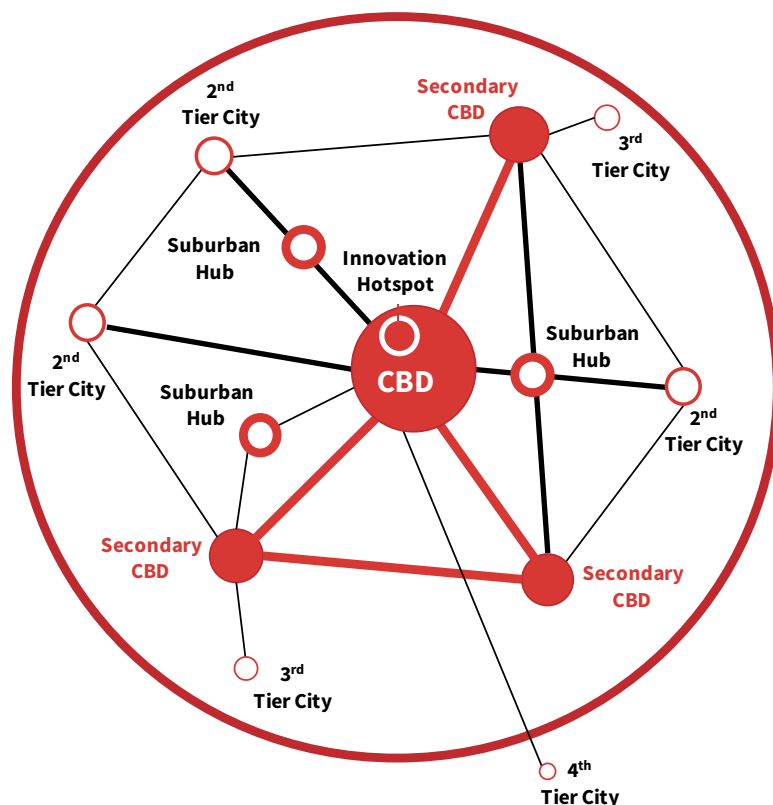
Urbanization will remain a strong and compelling force, but its dynamics will change with important implications for office space requirements. The spatial logic of our cities and their surrounds will evolve in response to digitization, new living and workplace preferences, and demand for a more sustainable and resilient urban model.

The COVID-19 pandemic will accelerate the trend of 'distributed urbanization', with the fast-track evolution of digitally-enabled, hyperconnected networks of cities that revolve around major cities such as New York, London, Paris, Tokyo and Shanghai. These polycentric city regions

have the advantage of providing both regional scale and local proximity. Distributed urbanization also offers a more sustainable model based on reduced commuting, flexible working and micro-mobility.

In recognition of the positive impact on carbon footprints, productivity and quality of life, some governments are explicitly building distributed urbanization and hyperconnectivity into their regional development strategies. China is leading in this regard with ambitious plans to create four mega-regions of hyperconnected cities.

The hyperconnected city region



Source: JLL, The Business of Cities, June 2020

# Office demand in the hyperconnected city region

---

## Moving toward a diverse office market ecosystem

The rise of the hyperconnected city region will gradually shift the spatial pattern of office demand. We think this will push toward a diverse office market ecosystem comprising three major elements.

### Increasing demand in livable, well-connected suburbs and small cities

**Short term:** Concerns over public transit and ongoing social distancing point to some displacement of office-based activities to locally-accessible suburbs and second and third-tier cities.

**Long term:** Quality of life, amenities and connectivity to the main urban core will be key considerations for office occupiers. The successful suburban and small-city locations will appeal to families and a mid-life demographic that value high-quality residential and education infrastructure. Cities and suburbs that can embrace sustainable mass micro-mobility with good transit to the main urban cores should sustain long-term success. By contrast, we could quickly see pushback in those suburban locations and smaller cities that rely on commuting by private transport.

### A reimagined and increasingly multi-use urban core

**Short term:** High-density urban cores that rely heavily on mass transit are likely to face pressure as safety concerns weigh on office workers and employers.

**Long term:** Urban cores will continue to attract people and corporates pulled in by amenities, opportunities and lifestyle. However, they need to be reimagined, reflecting their changing role in the urban ecosystem that is pivoting toward collaboration, creative energy and in-person social and business interaction. It is probable that more people will visit urban cores, but less frequently and with fewer daily commutes.

Urban cores will see more mixed-use development that appeals to urban living and working, while office space design will reflect the changing function of urban cores. Space will have to be agile and flexible, with adaptive reuse that enables hybrid uses. This will also require a rethink by city governments over their planning/zoning regimes.

### New clusters of innovation-based activities

**Long term:** Innovation will be crucial to city resilience and success. Prior to COVID-19 we had seen the emergence of a new innovation geography, with high concentrations of innovation-oriented activities in hotspots such as London's Shoreditch, Barcelona's 22@, Boston's Kendall Square and Tokyo's Shibuya. The economies of scale of hyperconnected city regions will facilitate the further clustering of innovation-based activities into new hotspots that offer a compelling cocktail of the four 'A's – affordability, amenity, accessibility and anchor institutions.

Companies working in the innovation and knowledge economy will continue to be attracted to these locations to boost productivity and encourage collaboration while attracting and retaining talent.



# Final Thoughts

---

## An ongoing evolution of the office

### Essential but ever changing

A period of uncertainty often follows unforeseen extreme events where predictions abound of how life and work will change in the aftermath. Think of the predictions following 9/11 – that no one would ever want to live or work at the top of a high-rise building ever again, and that our cities of the future would look vastly different. Moving forward almost two decades, our cities have not fundamentally changed, nor has the desirability of offices or residential at the top of skyscrapers. And often this real estate comes with a price tag to match the views.

The COVID-19 pandemic has been another unforeseen extreme shock to our world with far-reaching consequences over the short and long term. There will be an inevitable correction in the short term as the economic impact of the pandemic flows through to corporate activity. However, over the longer term the office will remain a fundamental part of our corporate culture and will play an essential role in our work and productivity.

That is not to say our offices and working lives will go unchanged. Working from home is now a proven success and it has highlighted to many employers and employees that there are benefits to both parties to incorporating this flexibility.

Office space still has a pivotal role to play in facilitating essential face-to-face activities that are not easily replicated online. Onboarding new staff, training and mentoring are all essential for career progression and maintaining a productive workforce. Additionally, the office provides a space for people to come together and collaborate, innovate and generally push boundaries to provide fresh impetus for business growth. And not forgetting, for some the office is a place of concentration, keeping work life firmly away from home life and providing a clear delineation between the two.

The office itself may change how it looks and feels. The office of the 1990s, with individual cubicles and workspaces with limited communal facilities, is not recognizable from the spaces we have today. A focus on well-being and some de-densification, along with improvements to design to encourage the interaction that is difficult to facilitate at home, are all elements that may change. Office space will continue to evolve but it is far from over.





To find out how we can support your global real estate market strategy with research insights and strategic advice, please contact one of the members of the global research team.

**Carol Hodgson**

Senior Director  
Global Research  
carol.hodgson@eu.jll.com

**Marie Puybaraud**

Global Head of Research  
Corporate Solutions  
marie.puybaraud@eu.jll.com

**Tom Carroll**

Director  
EMEA Corporate Research  
tom.carroll@eu.jll.com

**Peter Guevarra**

Director  
Asia Pacific Research  
peter.guevarra@ap.jll.com

**Flore Pradère**

Research Director  
Global Corporate Solutions Research  
flore.pradere@eu.jll.com

**Alex Colpaert**

Director  
EMEA Research  
alex.colpaert@eu.jll.com

**Scott Homa**

Director  
Americas Research  
scott.homa@am.jll.com

**Chris Clausen**

Director  
Asia Pacific Research  
christopher.clausen@ap.jll.com

**David Barnett**

Manager  
Americas Research  
david.barnett@am.jll.com

**About JLL**

JLL (NYSE: JLL) is a leading professional services firm that specializes in real estate and investment management. JLL shapes the future of real estate for a better world by using the most advanced technology to create rewarding opportunities, amazing spaces and sustainable real estate solutions for our clients, our people and our communities. JLL is a Fortune 500 company with annual revenue of \$18.0 billion, operations in over 80 countries and a global workforce of more than 94,000 as of March 31, 2020. JLL is the brand name, and a registered trademark, of Jones Lang LaSalle Incorporated. For further information, visit [www.jll.com](http://www.jll.com).

**About JLL Research**

JLL's research team delivers intelligence, analysis and insight through market-leading reports and services that illuminate today's commercial real estate dynamics and identify tomorrow's challenges and opportunities. Our more than 500 global research professionals track and analyze economic and property trends and forecast future conditions in over 60 countries, producing unrivaled local and global perspectives. Our research and expertise, fueled by real-time information and innovative thinking around the world, creates a competitive advantage for our clients and drives successful strategies and optimal real estate decisions.