KPMG

New working patterns and the transformation of UK business landscape

September 2021

kpmg.com/uk

Foreword

The pandemic caused enormous damage to the UK economy and people, but it also drew attention to their resilience, as businesses and workers adapted to the new conditions and accepted temporary limits on personal and economic freedoms. Almost overnight, remote working became widespread for sectors and occupations where it was possible. For some, remote working ended the daily ritual of a commute and showed a new perspective on work-life balance. For others, remote working brought isolation and difficulties.

As we emerge from this extraordinary period, businesses need to adapt to the new business environment that they will be facing. Some changes taking place during the pandemic are likely to become the new norm, ushering further changes in the UK business landscape.

As the UK economy recovers from the pandemic and the success of the vaccination program sees a return to normal, it is becoming clear that home-working is likely to remain in some form.

This report offers a potential scenario for what these changes might bring, and the consequences for the shape and structure of the UK's economic geography.

Yael Selfin
Chief Economist, KPMG in the UK

Contents

Executive summary

The COVID-19 pandemic is expected to change the way we work permanently, with many workers continuing to work from home during part of the week. We used detailed employment and population data to model how these new working patterns could transform the landscape of the UK economy.

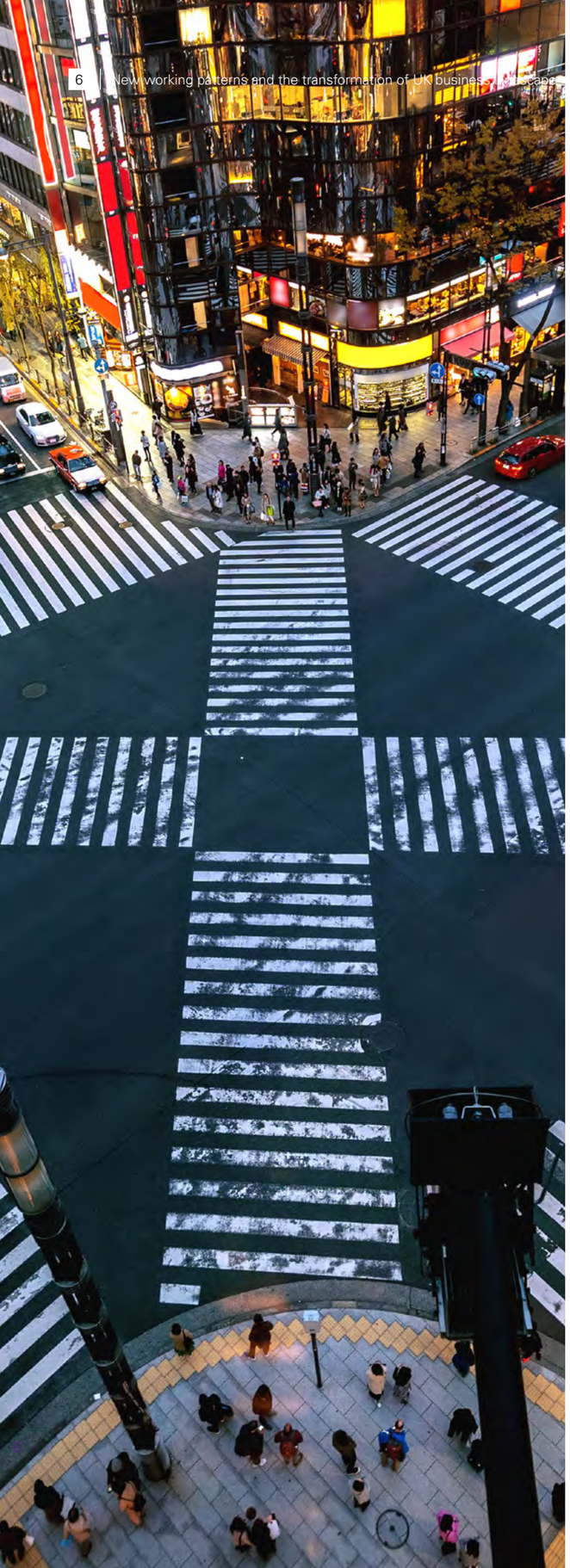
An important consequence of increased working from home (WFH) is the need for less office space. In response to this, we expect employers to downsize their office requirements. An increased availability of office space in the larger business hubs could see businesses that were previously outside of central business areas consider moving there. This will allow them to access a larger pool of workers, suppliers and clients, as well as to benefit from better access to knowledge sharing and other benefits of large agglomerations.

Firms located in denser business areas tend to be more productive and we expect overall labour productivity in the UK to rise by 0.5% as the UK business landscape consolidates.

Meanwhile, less central business areas could see a decline in employment, which moves away from these areas, an effect compounded by the loss of footfall due to increased levels of home working. Together, these trends could accelerate the repurposing of these areas towards more residential, leisure, retail and other uses.

The new working patterns will impact most local high streets too. While demand in the central business hubs may remain largely unchanged, with the loss in footfall due to people now working part-time from home offset by the inflow of new firms into the area, other locations are likely to experience more changes gradually.

Smaller, mostly residential towns and neighbourhoods are expected to reap the benefits of greater homeworking through increased demand for local services. At the same time business towns in close proximity to larger business hubs could see a net fall in demand for local services, as the inflow of residents spending more time working from home is more than offset by the outflow of businesses to larger business areas.



Future working patterns

As the pandemic gradually subsides, more attention is turning to the permanent changes that it will trigger. The COVID-19 pandemic transformed the way we work, with people who are able to work from home doing so to a large degree over the past year and a half. Many jobs cannot be done remotely but according to our estimates about 44% of UK workers can do so if required[1]. While many employees who shifted to working from home reported an improved work-life balance, some also reported challenges in making a clear break between work and home time as well as in collaborating with colleagues for parts of their tasks.

As COVID-related restrictions are lifted, and the UK returns to more normal levels of travel and social interaction, businesses will need to decide how far they will embrace working remotely in future. Their decision is likely to be influenced by the impact such permanent changes will have on costs, productivity, and employees' wellbeing. So far, the consensus view seems in favour of hybrid working, with remote working limited to a few days per week. A survey of CBI members carried out in July 2021 suggested that 93% of businesses expected to adopt hybrid working beyond 2021[2].

Some of the potential implications of remote working on productivity are discussed on page 16 below, with evidence so far pointing at a mixed picture. In our analysis, we assume a net positive impact on firms' profitability, largely thanks to a reduction in office costs (see page 12). Given the choice, we therefore expect businesses which can adopt a hybrid working pattern in future to do so.

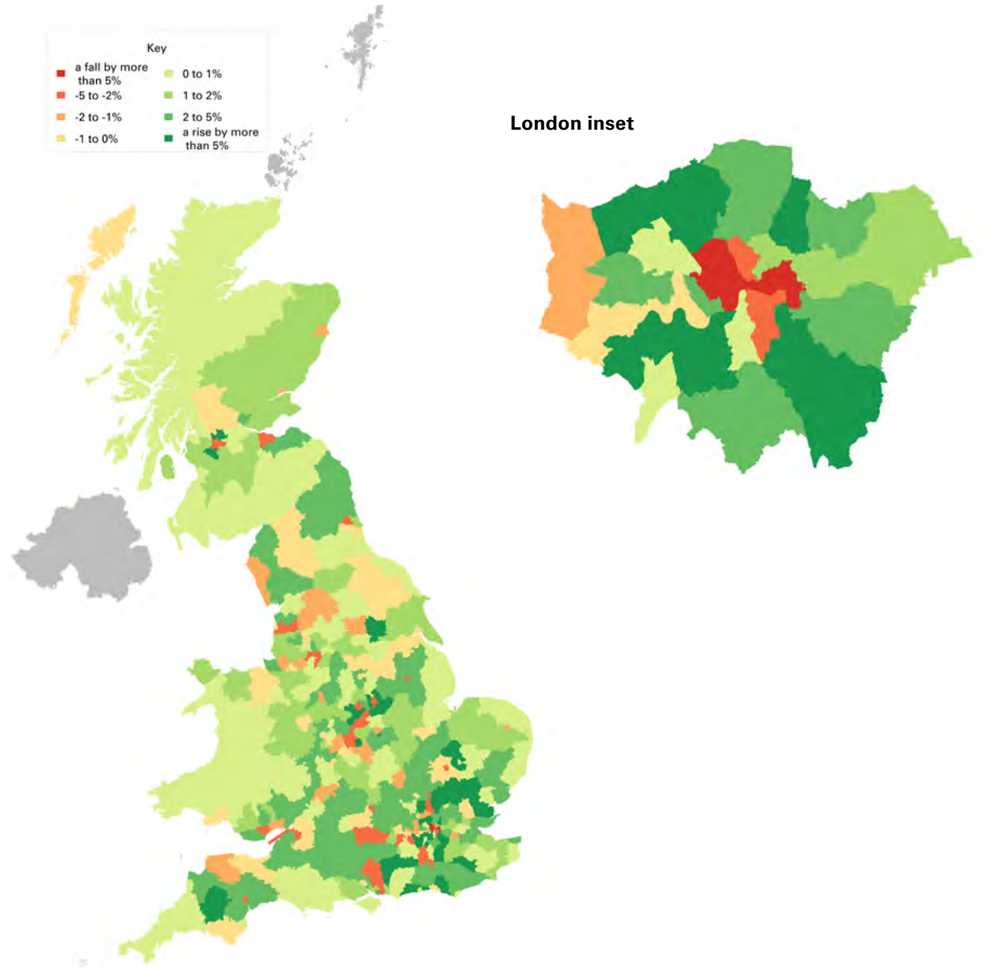
1. See KPMG, 'The future of towns and cities post COVID-19' for details on how we estimated these numbers. The future of towns and cities post COVID-19 - KPMG United Kingdom (home.kpmg)
2. See The revolution of work (cbi.org.uk).

Impact of increased WFH on local demand

The adoption of new working patterns could transform the business landscape in a number of ways. The first thing we looked at was the impact increased working from home could have on demand for local services. For the purpose of our analysis, we assumed that workers whose job allows them to work from home will be spending two days a week on average doing so. This will therefore represent the additional time that these workers devote to consuming services (such as retail, hospitality, personal services) in their local area rather than near their office. Other patterns of WFH may emerge instead, which will either increase or decrease this effect on local high streets.

Our analysis shows that on average, locations that are mainly residential, such as suburbs, rural villages, and commuter towns, tend to see a boost to demand from homeworkers (as represented by the green areas in Chart 1). At the same time, places with a concentration of office-based employment, such as city centres and business parks, will lose out (represented by yellow to red areas)[3,4].

Chart 1: Potential impact of increased WFH on local demand (Net change in total potential spending power by local authority)



Source: ONS, Nomis, KPMG analysis

3. See Appendix 2 for a full description of the methodology we used. Our analysis focusses on the effects WFH would have on the geographical reallocation of workers. We ignore any potential effects of WFH on aggregate UK employment via increased labour market participation. We also ignore any potential future moves of workers to different residential areas.
4. Full list of the impact on each local authority can be found in Appendix 1.

The transformation of business hubs

For the majority of companies adopting a flexible working model after the pandemic, with workers spending part of the week working from home, maintaining the status quo would leave the bulk of UK office space underutilised. In this report we therefore examine a scenario where the adjustment to the post-COVID normal takes place through a reduction in office space used by businesses. The organisational and cultural changes that take place alongside this change are expected to maximize the benefits of these new working arrangements.

These changes described in our scenario are unlikely to be immediate. The economic recovery from the pandemic is still ongoing and many of the key factors driving firms' decisions are highly uncertain, while valuations have yet to adjust to the new conditions. However, as the UK economy recovers, businesses will have the opportunity to re-examine their ways of working, and whether there are models that can benefit the well-being of workers while also improving their bottom line.

Adapting office space to the rise in WFH

Mel Newton, a Partner in KPMG's People Consulting Practice shares her insights about the changes to the office space likely to be brought on by hybrid working:

Changing purpose of offices

The shape and function of the workplace should facilitate the type of work that employees will look to carry out in the office going forwards. In a hybrid world, the office takes on four roles:

Community

Building relationships within and between teams. Forcing working relationships with colleagues in meaningful ways. Coming together socially for team 'on-sites'.

Collaboration

Working together creatively in teams to maintain levels of innovation which may have dropped during the period of remote working. Brainstorming, strategising, planning, whiteboarding. Exchanging ideas and building on them together.

Learning

Some content is best delivered face to face. While we anticipate the future of learning as remote-first (80:20 may be a realistic delivery ratio), there will always be demand for in-person courses.

Culture and brand reinforcement

For many customers, the office will continue to be the face of the company. Its form should reflect the image that a company would want to project, from **'Familiar and comfortable'** to **'Future forward'** or **'Millennial and Gen Z friendly'**.

Chart 2: The changing purpose of offices

The hybrid workplace

The shape and function of the workplace should facilitate the type of work carried out by your workforce

Workstations

- Longer periods of desk-based work
- Work requiring multi-screen setups
- Stints of work between meetings
- Provision for colleagues who cannot work from home
- Customer service desk

Office/Meeting rooms

- Focused activity
- Private meetings
- Inductions, seminars, events
- Virtual to physical meetings
- Sprint rooms for project based work

Secure spaces

- Highly confidential and price sensitive work

Private

Open

Open plan collaborative place

- Ideation/innovation sessions
- Collaborative team working
- Team stand-ups
- Spontaneous tasks/touchdowns

Social & Community spaces

- Catch ups with colleagues
- Show and tell, informal learnings
- Socialising during breaks
- Informal discussions
- Branded zones with product immersions

Practically speaking, we anticipate that much desk-based work will be done from home. This means a drastic reduction in the requirement for desks in the office. Rather, as colleagues come together to collaborate, learn and form a community, the office should facilitate this through the provision of break out spaces, meeting rooms, and learning areas.

It is unlikely that a single job is best suited to a single work mode. Rather, breaking down jobs into tasks allows analysis of the optimum balance of hybrid working that will drive productivity and effectiveness. This directly drives the physical workplace and workspace requirements.

Mel Newton, Partner, People Consulting Practice, KPMG in the UK

Managing the demand for space

Mel Newton recommends companies take a two-fold approach to office based work:

— Establish guidelines at an organisational level, informed by culture, productivity considerations and employee preferences

— Outsource the practicalities of managing office attendance to local leadership. We call this establishing 'working patterns'. Practically, this could look like developing a team charter to outline what hybrid working will look like for you. What activities will bring you together in person? What meetings will you intentionally conduct virtually? How will you ensure that in a hybrid meeting, everyone is an equal participant? On which days of the week will you come together as a team?

It is likely that certain days will be more popular across teams than others. On the most practical level, an internal recharge method can be leveraged to incentivise attendance on typically lower volume days (often Monday or Friday). Where business units find a higher facilities charge applied to their cost centre for attendance on peak days, there is a strong incentive to encourage their teams to come in on non-peak days, thereby averaging out attendance overall for the company.

Mel recommends that clients monitor facilities usage as part of establishing the success of hybrid working. Who are the 'super-users' of the office and why? What is the average attendance per site, and what is the range in attendance throughout the week? When in the office, what areas are colleagues using – desks? Break out spaces? Meeting rooms? Leveraging these insights to revisit your hybrid strategy at regular intervals will be key to optimising office use and enhancing employees' engagement and retention.

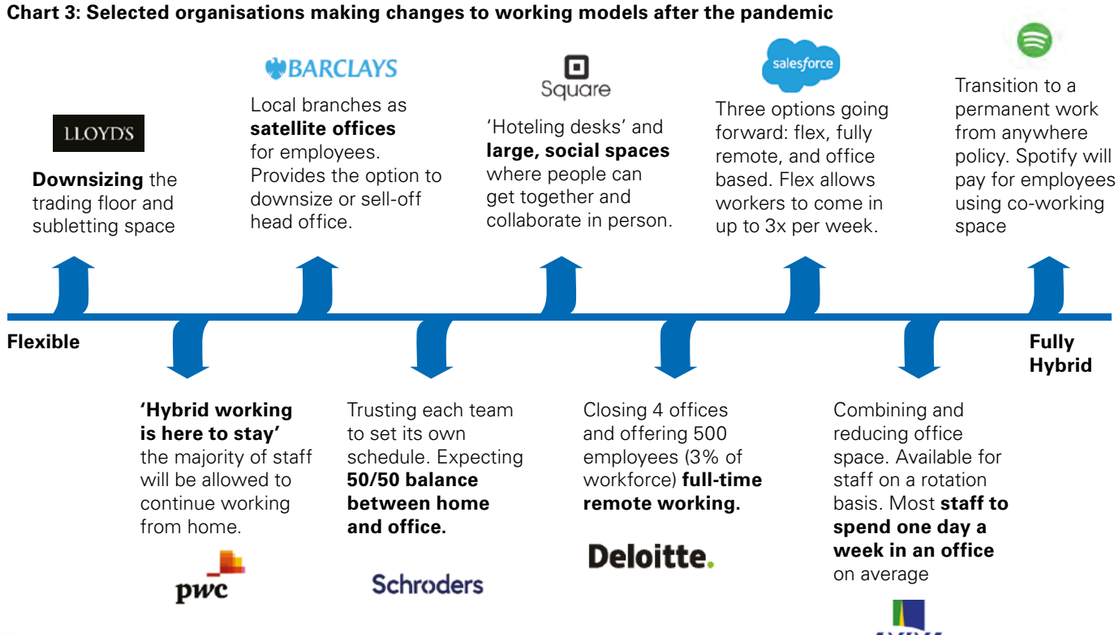
Property cost savings

There are many organisations, particularly in the professional services industries, whose modes of work enable them to offer employees either a set number of days to work from home (say between two or three days a week) or entirely flexible arrangements to be defined by their teams – perhaps only needing to come together in a physical space 2-3 days per month. For these organisations, the pre-pandemic footprint might be reduced as much as 40%.

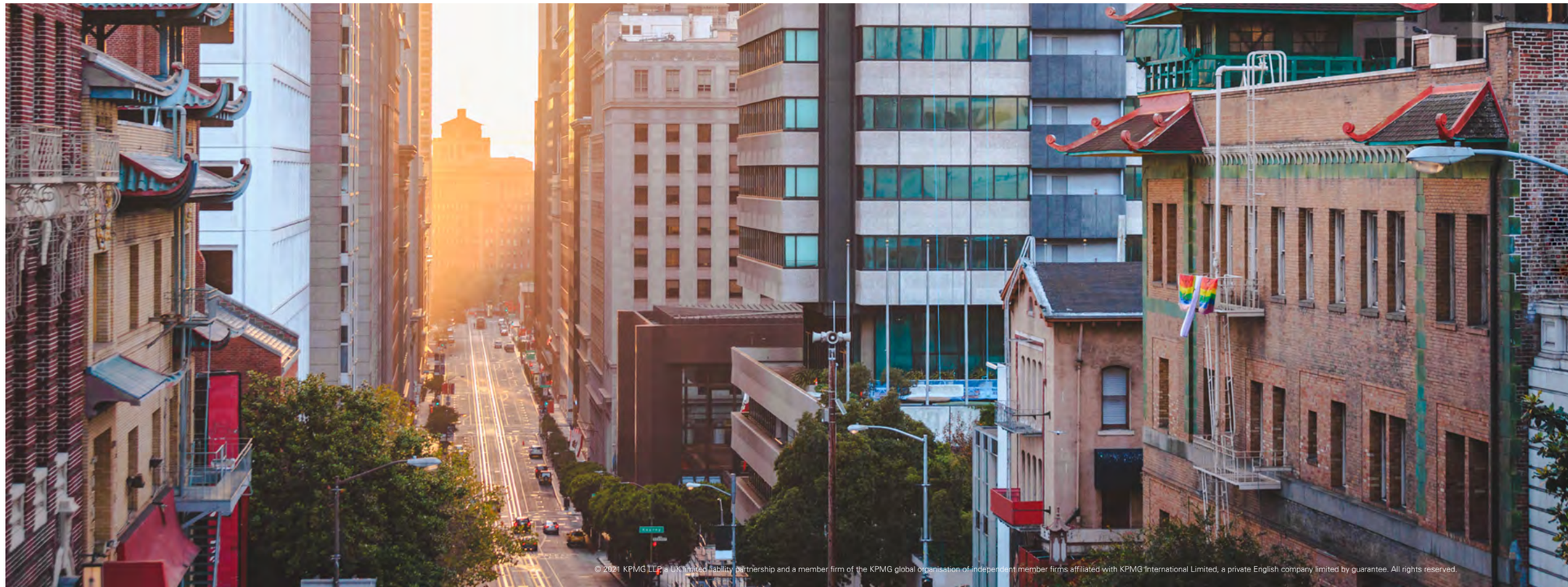
This has been a trend over the past 5-10 years but has significantly increased with the very effective case for change that the pandemic has provided. Other organisations had already embraced the idea of home working and have been effectively using this model for some years, e.g. BT. The Government's 'Levelling Up' agenda has also been looking at moving jobs out of London to the regions. This will serve to free up additional office space in London and add critical mass to business centres mainly in the North.

Public examples of recent reductions of office footprint include Aviva, Standard Chartered, Lloyds Bank and Three Telecoms. Many others are following suit, but not all so publicly.

Chart 3: Selected organisations making changes to working models after the pandemic



Source: KPMG analysis



What is also interesting in this space, is how organisations will use these real estate savings, once they are able to realise them. There may be a temptation to realise these immediately, but more innovative organisations are considering how to use a proportion of the vacant space to deliver a better employee experience, thereby attracting and retaining the best talent in their field. Examples might include investment in innovative workspaces that promote physical and mental well-being in the remaining physical office spaces.

KPMG has also been looking to refigure its office footprint as it adapts to the new working mode. Our presence in Manchester is one example.

> **Pre-pandemic, KPMG operated out of two locations in Manchester City Centre, 1 St Peters Square and a smaller location close by within the Manchester Tech Centre (MTC), a Bruntwood building. The lease on MTC was due for renewal in August 2021 and this facility hosted our growing technology business and associated sprint rooms, project areas and development teams. During the pandemic KPMG sold its Restructuring business (Interpath) and its Pension's business (Isio) moved to its own new location and this brought about spare office space in 1 St Peters Square. This, coupled with our view on working patterns after the pandemic, meant that we decided to move our Tech teams to 1 St Peters Square and thus freeing up our MTC space. We worked well with Bruntwood to do this in a smooth manner and were delighted that they were able to re-lease the facility within a number of weeks, showing the attraction of Manchester and that location in particular.**
>
> **Warren Middleton, KPMG Manchester Senior Partner**

Implications for the real estate market

The central assumption behind our analysis is that hybrid work, when people work part of the week from their home and part of the week from the office, could lead to a significant reduction in demand for office space by current tenants. Even if workers are restricted to working from home one or two days per week, this could lead to the current capacity of office space increasing by 20%-40% if that space can be utilised effectively.

> **Thinking about the purpose of the office – collaboration, creativity, culture, coaching – this all pushes you towards having more people in on certain days than spreading things evenly, even if it is just a network effect of people who want to catch up aligning on the same day. The combination of these factors means that few companies are likely to achieve the level of space reduction they aspire to, but the overall space reduction could still be significant.**
>
> **Andy Pyle, Head of Real Estate at KPMG**

Limited scope to convert existing office space into residential and other non-office use means that the current stock of office buildings will remain with us for decades to come. Any changes to the pace of construction would take decades to have a significant impact on the overall stock.

The reduction in the use of office space as a result of the rise in WFH could herald a consolidation in the market. As firms look to reduce office space, we could initially see a fall in office rental costs in some areas, as the existing stock of office supply outstrips demand. The durability of the existing stock of office buildings means that supply cannot adjust quickly, leaving the price as the main mechanism of market adjustment. It is unclear how widespread such falls may be, with significant variations expected reflecting buildings' quality and desirability of location, and a proportion of offices seeing their valuations outperform the market generally.

Softer pricing will buttress the consolidation of businesses in major business hubs, with some areas experiencing an increase in demand that serves to fill up empty office spaces. For these areas, the initial impact of the shift to WFH is likely to be followed by a prolonged period of strong growth, followed by a gradual consolidation around the most desirable locations and assets, which would see a relative appreciation and recovery in rents.

Conversely, areas that lose out during this process of consolidation could experience a continued downward pressure on rents. Increasing levels of vacant space and falling rental yields are likely to see vacant offices become prime candidates for conversions into alternative uses.

The rise of major business hubs

We expect that over time, the shift in business location would lead to the development of several major business hubs across the UK. The areas that attract new businesses are set to gradually become specialised hubs for a number of sectors. The increase in the concentration of businesses and workers has the potential to make those businesses located there more productive, and enable these areas to serve as the engines of economic growth.

Easy access to clients, suppliers and talent makes it likely that UK's major cities will be able to attract additional businesses to fill up any vacant space they will have, as existing tenants look to reduce their office footprint.

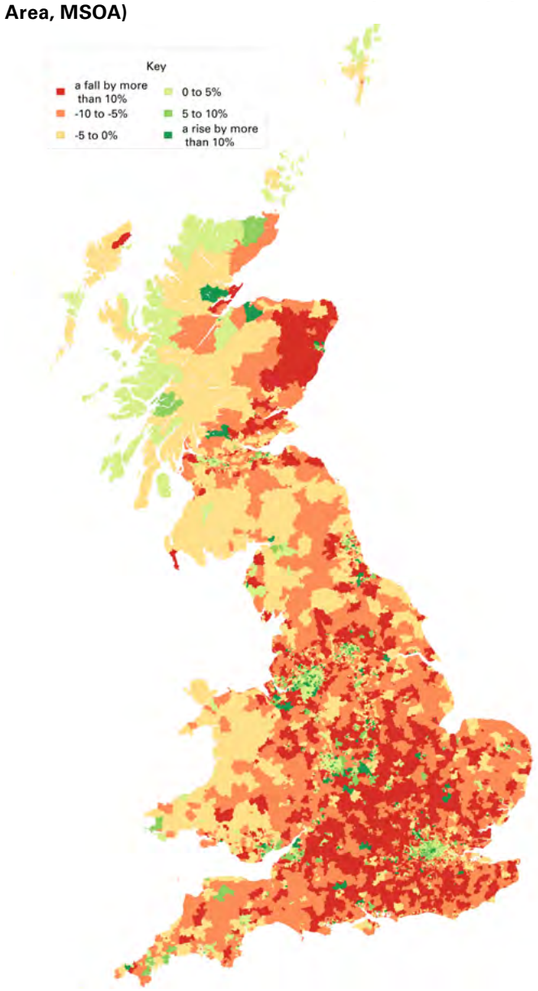
Our analysis identified the number of jobs in each location that are affected by the shift to working from home, and the scale of office space that becomes available if those who can work from home do so on average two days per week[5]. We then modelled how businesses could take advantage of freed-up office space in larger city hubs, with a higher level of economic concentration, to move there[6]. The limit that we imposed on the distance businesses could move means that while there is a significant scope for relocation within regions, these do not represent major national displacements and could be seen as plausible given the current pattern of urbanisation within the UK.

5. See Appendix 2 for a more detailed description of our methodology.
6. We limited the range of business moves to be within 60 minutes of commuter drive-time from of their original location, also taking into account the existing level of capacity in each business hub.

While initially all areas could see a fall in the daily average numbers of workers in offices there, the net inflow of businesses to the more desirable areas should compensate for the initial drop due to WFH, with the most sought after areas able to see their office space capacity fully utilised even in the new world of WFH. This means that the levels of daily commuter footfall in these areas should eventually recover to match their pre-COVID levels[7].

The net change in employment in our scenario is shown in chart 4 below, with green areas denoting the locations set to benefit most from the shift by businesses to larger hubs, while areas with shades of red and yellow could see outflows of employment. There is a clear pattern that emerges in favour of larger towns and cities within regions.

Chart 4: Business relocation as office space frees up (potential change in employment by Middle Layer Super Output Area, MSOA)



Source: ONS, Nomis, KPMG analysis

The new business mega hubs will be able to enjoy a higher level of business concentration – one that would not have been possible without hybrid working, thanks to previous constraints due to congestion and overcrowding becoming much less important. Despite being host to a larger workforce, the daily number of workers commuting into the office is expected to be at most equal to the level prior to the pandemic.

7. While changes to internal office layouts could have an impact on the level of capacity, we expect the net effect of this to be a relatively minor.

The new business landscape

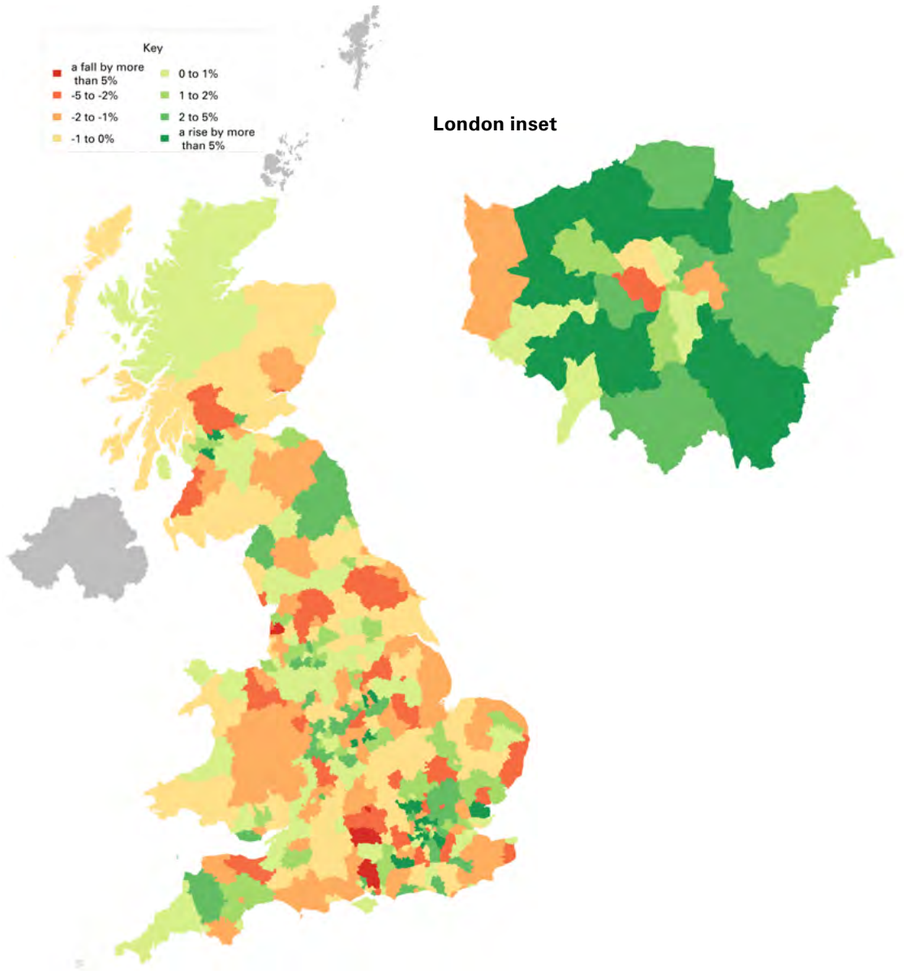
Combining together the effects of increased home working and business relocations to denser business areas gives us a clearer picture of what the local demand for services could be like in different areas of the UK.

In central areas that serve as the primary business hub, the loss in footfall due to people now working from home approximately two days a week on average is expected to be offset by the inflow of new firms into the area, which serves to keep demand for local services largely unchanged.

The worst-affected areas are those that experience an outflow of firms given their proximity to a larger productivity hotspot. That is in addition to the loss of commuter footfall among remaining employees due to the prevalence of working from home.

Areas that are largely residential, with little or no office presence, could see a net gain from residents working from home during part of the week. These areas are largely unaffected by the loss of office-based footfall and instead see growth in demand from local residents.

Chart 5: Changes to local demand as a result of WFH and firms' relocation (by local authority)



Source: ONS, Nomis, KPMG analysis

© 2021 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Impact on productivity

The changes brought about by the increase in WFH are likely to influence the productivity of workers. That is important because any rise or fall in productivity will affect future economic growth and households' living standards. At the same time, higher productivity would mean that the same level of output could be achieved working fewer hours.

A greater concentration of economic activity in one area tends to increase the productivity of workers and businesses located there due to the existence of the so-called agglomeration economies. These benefits develop thanks to a number of reasons: for knowledge-intensive firms the benefits could arise from easier knowledge sharing. For others, it may provide better access to suppliers or customers; consider the example of the city of London for financial services or Silicon Valley for technology businesses. Lastly, large city centres tend to provide access to the widest pool of talent, offering an easier route to recruitment. Chart 6 below shows the correlation that exists between productivity and job density across the UK.

Chart 6: Correlation between job density and productivity (UK's 179 NUTS3 areas)

Source: ONS, Nomis, KPMG analysis

Since agglomeration economies result from the high concentration of businesses and workers, the new hybrid working practices could potentially enhance this effect in major cities that successfully attract more businesses to their business hub, filling up the office space vacated by existing companies as staff moved to partially WFH.

While workers may not be interacting physically with colleagues while WFH, it is expected that they will be spending a significant proportion of their time while in the office undertaking a range of collaborating activities and that they will remain attached to their office for the purpose of its labour market catchment area. We therefore assume that their productivity would not diminish as a result of WFH, and will remain at the level where their office is based.

However, as the number of workers attached to the major cities rises, working at least part of the week from their office there, agglomeration benefits could also increase, potentially in turn lifting productivity. At the same time, smaller town and cities close to larger business hubs may see their average productivity levels fall as office occupancy declines.

We estimated the impact of changes in working habits on productivity by calculating the change in business density in each area. We created an economic mass index, which consists of the employment level in each area as well as the relative contribution of employment in nearby areas. We then used an estimated elasticity from existing research, which suggests that a 10% increase in economic mass leads to a 0.83% increase in productivity[8].

Overall, our estimates show that the changes in the concentration of business activity envisaged by our scenario have the potential to add an extra 0.5% to average productivity in mainland UK[9]. Larger pools of workers, thanks to greater concentration of businesses, will contribute to the accumulation of agglomeration economies. The main benefits are expected to be concentrated in the larger business hubs, as well as in areas with a large proportion of the workforce working partially from home (Table 1).

8. See Appendix 2 for a full description of the methodology we used to estimate the change in productivity.
9. Current analysis is restricted to mainland UK due to data availability.

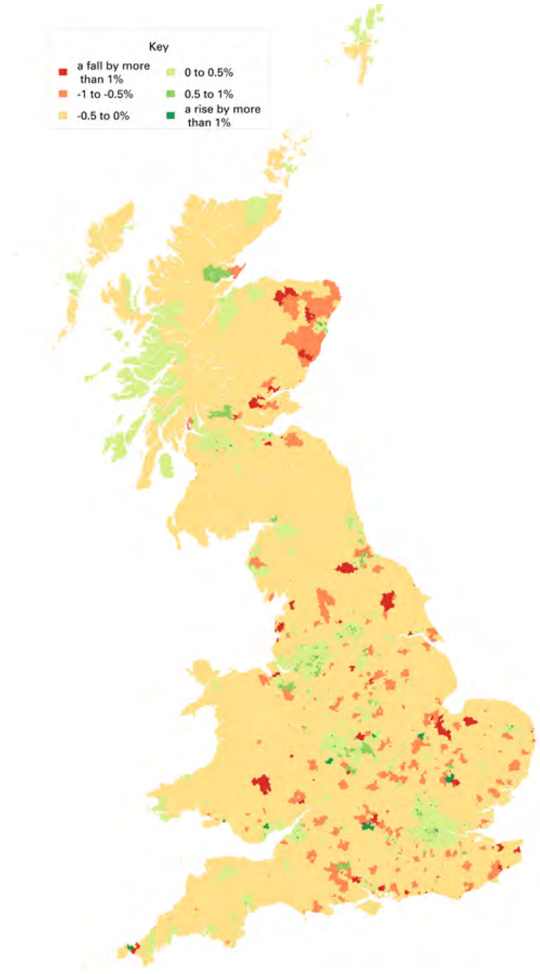
Table 1: Best and worst ten places affected by potential changes to productivity

Town/city	Productivity change, %
Hemel Hempstead	1.26
Manchester	0.68
Salford	0.61
London	0.58
Warrington	0.56
Leeds	0.53
Watford	0.53
Bristol	0.50
Norwich	0.43
Birmingham	0.38

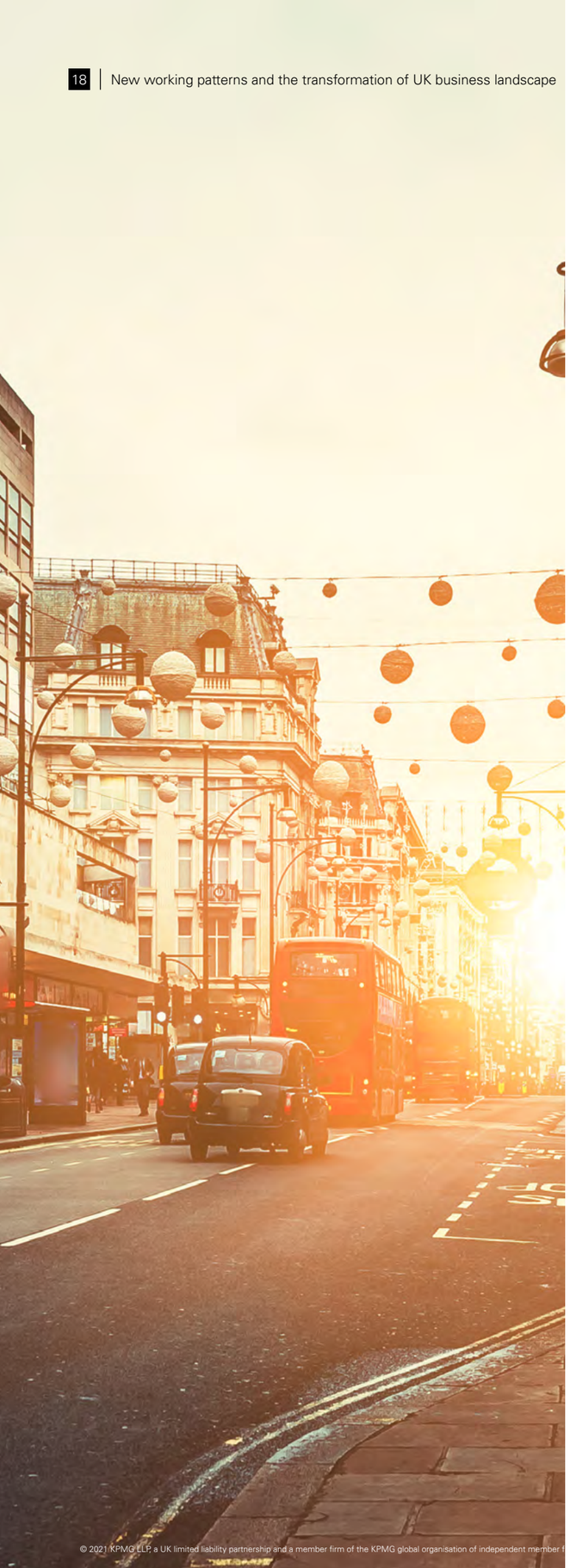
Town/city	Productivity change, %
Harlow	-0.19
Bedford	-0.22
Hartlepool	-0.25
Gillingham	-0.26
Shrewsbury	-0.30
Hastings	-0.34
Blackpool	-0.52
Eastbourne	-0.54
Southend-on-Sea	-0.68
Southport	-0.73

Areas that stand to lose out business to larger business hubs could see a fall in productivity, although those workers who moved with them are likely to benefit from increases to their productivity.

Chart 7: Impact of a shift in business location on productivity



Source: ONS, Nomis, KPMG analysis



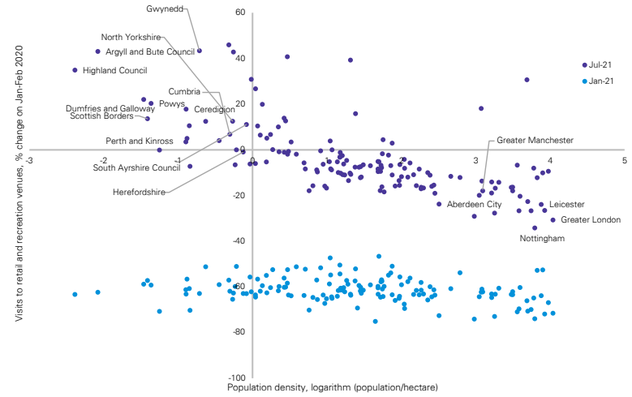
The revival of the local high street

Prior to the pandemic, High Streets and town centres across the UK were confronted by the prospects of decline, faced with rising labour costs, inflexible business rates and competition from online commerce. The situation for many businesses was exacerbated by the pandemic, with stay-at-home policies and social distancing restrictions forcing them to shut or operate at reduced capacity for months.

But as the economy began to recover, the short-term impact on the local high street has been largely positive. With households' income protected by government policies during the pandemic, resulting in limited loss in disposable income and an accumulation in savings, consumers have money to spend.

High Streets in close proximity to residential areas also benefited from the rise in the number of employees working from their homes. Over the course of the pandemic, less densely populated areas have tended to recover more quickly, as measured by the number of visits to local retail and hospitality venues. As Chart 8 illustrates, rural and more residential areas experienced more visits than before the pandemic while large urban hubs saw visits still below the numbers prior to the pandemic in July 2021.

Chart 8: Rural and residential areas saw a stronger recovery than major urban hubs



Source: Google Mobility Report, KPMG analysis

The rise in WFH is expected to reshape local high streets and have major implications for businesses that rely on workers' footfall.

As people spend more time working from home and less time in the office, demand for services traditionally associated with commuters – retail, hospitality, and personal services – is also shifting. However, similarly to the demand for office space we examined above, it is important to look at the combined effect of greater homeworking and firms' relocation in estimating future demand across different locations.

Changes are expected to happen gradually. Places with relatively high residential population could – at first – experience a surge in demand for local services as a result of increased homeworking (as highlighted in Chart 1 above). However, proximity to a larger business hub in some places could gradually absorb some of the demand from local workers as some local businesses choose to relocate to more central business areas. Therefore, in many cases we expect these two trends to work in opposite directions.

1

Large business hubs, located in larger cities such as London, Manchester, or Glasgow, could see no net impact on demand. With the promise of agglomeration benefits continuing to attract businesses to the city, additional footfall from newly arrived firms will eventually make up for the loss of demand when existing commuters work from home. As highlighted above, we expect offices in the major business hubs to return gradually to operating at full capacity, keeping demand for local services largely unchanged.

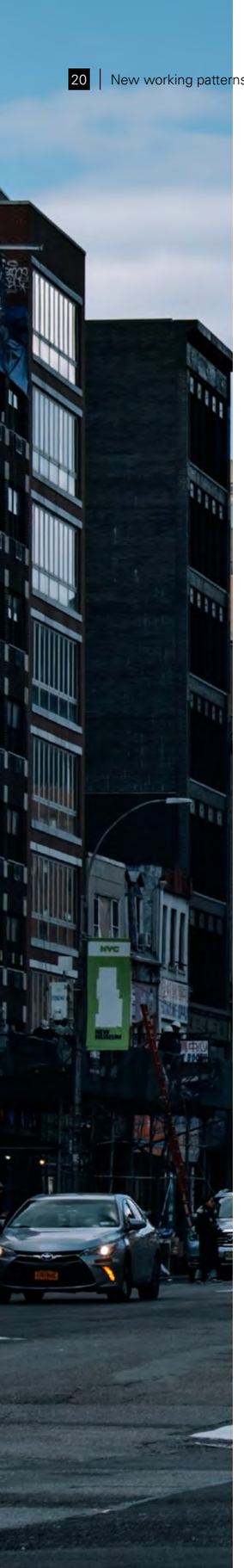
2

Smaller, mostly residential towns and neighbourhoods reap the benefits of greater homeworking through increased demand for local services. These are the areas with little or no office presence, and are therefore unaffected by the loss of office-based footfall. As people traditionally prefer to shop locally for some essentials such as food, demand for those items should increase thanks to the greater physical presence of residents during the work week. The same is true for personal services such as local hairdresser, replacing those previously attended closer to the office, and hospitality offerings, with local venues now catering for after-work drinks.

3

Business towns in close proximity to productivity hotspots could see a net fall in demand for local services, as the inflow of residents spending more time working from home is more than offset by the outflow of businesses to central business areas. This can be further exacerbated in areas where the number of workers exceeds the number of residents, causing a larger decline in demand from commuters who now work partially from home. However, one of the mitigating factors for some of these towns is that their residents working elsewhere tend to have higher incomes on average the workers commuting to work there, which serves to mitigate some of the impact on demand as highlighted in our analysis[10].

10. See the methodology we used in detail in Appendix 2.



The new high street as a place of purpose

As residents spend more time at home, and some locally based businesses are pulled towards larger business hubs, the high street offering in smaller towns and cities may need to become more consumer-focused and less business-focused. For example, there may be less demand for takeaway food during lunch time and higher demand for personal services such as hairdressing and for coffee shops where people can take a break and meet locally.

As local high streets find a new purpose, local businesses in consumer-focused services may find it hard to recruit staff locally if the availability of suitable housing nearby is limited. That would slow the transformation of local high streets and put upwards pressure on wages in these sectors locally.

Chris Dunbar, Director of place, regeneration and development at KPMG in the UK notes that post-COVID, local city and town centres will need to specialise and refocus in order to play to their strengths by becoming places of purpose.

> **Local authorities have an opportunity to identify how best to enable change, acting as a catalyst for change working with their community, visitors, and the private and third sectors**

For local high streets to transform into places of purpose, there are a number of building blocks that will apply to a greater or lesser extent in each place:

- **Retail** offering will be reshaped in order to meet the demands of the future of retail, covering experience, engagement and grass roots retailers (see further on page 21)
- **Culture**, **leisure, sport,** and **recreation** will grow to provide engagement, attraction and a reason to visit the high street
- **Offices** will see back office functions give way to collaborative workspaces, start-ups and creative industries, as well as flexible space close to home (see further on page 8)
- High quality **education** and **skills training** will be tailored locally to support knowledge intensive businesses and improve employment opportunities for local residents
- **Residential housing** provision will evolve to take account of increased home working, with more workspace and more outdoor space demanded by occupiers
- **Community** uses and grass roots businesses are given the space to reclaim and repurpose empty and vacant space
- **Public realm,** including parks and shared space, reclaims areas of towns, promoting wellbeing, and providing opportunities for walking, cycling and leisure
- **Heritage** is prioritised, places are preserved, and the best buildings enhanced, while some of the worst no longer survive solely because of ground floor retail
- **Healthcare** moves closer to the populations it serves, taking advantage of availability of cheap space in town centres, for diagnostic and outpatient provision

Places will find their purpose where local government, residents and businesses work together to map their future shape, and make concrete plans to support and enable the necessary changes to make the most of the new post-COVID business reality.

The future of retail is hybrid

Paul Martin, Head of Retail, KPMG in the UK looks at how new habits acquired during the COVID-19 pandemic could drive change in the retail sector:

Over the last 15 months we have heard many different superlatives both from a positive and negative perspective relating to the UK retail sector. One topic that has received significant airtime is the growth of online retailing, to the detriment of physical shopping. Some commentators have highlighted that we have experienced 5-10 years of online growth within the period of twelve months. Whereas some of this sentiment may be correct only time will tell and the million pound question remains which of the consumer behavioural changes we have experienced during the pandemic are here to stay.

There is no doubt that the online channel has grown exponentially since March 2020. In that context multiple sources, in many cases using different methodologies and definitions of the retail sector, provide their views on the penetration of the online channel which all tell the same macro-growth story, although there is some divergence in the detail.

Our KPMG model shows approximately 16% online penetration pre-COVID in 2019 which has accelerated to 25% in 2021[11], which is of course a significant growth curve. It is important to emphasise that pre-COVID significant variations between different categories already existed, although when looking at food vs non-food there is a more important distinction to be made with non-food growing from 21% to 39% and food showing the highest growth trajectory from 5% to 11% in 2021. When reviewing our longer-term forecast to 2030 we believe overall penetration will be 35-37% of the total retail market, which is definitely lower than some analysts' 50% prediction.

We also expect online sales to fluctuate seasonally with peaks in the months of colder weather and shorter daylight and troughs in sunnier periods when consumers will spend more time visiting physical locations. The convenience of using the online channel is here to stay with a section of consumers experiencing this for the first time on a regular occurrence over the last 15 months.

This means physical retailing will remain the largest channel for the foreseeable future although the developments of the last 15 months have three key implications. We articulate these in detail in our recent publication "Future of Retail"[12]:

1. The retail **business model** has been built on the physical channel being the dominant route to market. This works if online penetration ratios are below 10% (as an average). But it doesn't if overall online penetration is 35% or 50%. Many of the current models are no longer fit for purpose in that case and therefore re-engineering retailers' business model towards a "true" customer centric and channel agnostic approach is a "must" do.

2. Connected with the above point of evolving business models, the growth of online has fundamentally increased the **cost of doing business.** Therefore, retail profitability in the UK as a median figure is at historic lows. We estimate that between 20-50% of pre-COVID costs will need to be reduced over the next 12-24 months. Optimising existing cost bases will become even more important as retailers will need to balance their investments away from physical store openings and refurbishments towards technology to cater for the growing importance of the online channel. This means in many cases that multi-year investment plans need to be revisited.

3. Historically, product and channel related performance metrics have been at the forefront of retailers reporting measures. Going forward, **customer related metrics** such as Life time value of the customer, net acquisition and retention costs, will need to become the base layer with product related criteria remaining important and channel KPI's becoming less important. This is already common practice with many players originating in the online space and will define how businesses operating in the consumer commerce ecosystem will be measured in the future.

In conclusion it is fair to say that the answer is not online vs physical but hybrid business models with all the implications.

11. These numbers are annual averages and cover all retail categories.
12. See Future of Retail (assets.kpmg)

Appendix 1

Results by region

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
Scotland	East Renfrewshire	10.3%	-6.6%	9.1%
Scotland	East Dunbartonshire	7.5%	-7.6%	5.7%
Scotland	Clackmannanshire	4.5%	-5.5%	2.6%
Scotland	Renfrewshire	1.4%	1.2%	1.8%
Scotland	Glasgow City	-2.1%	7.3%	1.3%
Scotland	East Lothian	4.1%	-9.3%	1.2%
Scotland	South Lanarkshire	1.6%	-2.8%	0.8%
Scotland	Aberdeen City	-1.7%	6.1%	0.8%
Scotland	Highland	0.3%	0.1%	0.4%
Scotland	West Lothian	1.1%	-2.4%	0.3%
Scotland	West Dunbartonshire	0.2%	0.1%	0.3%
Scotland	North Ayrshire	1.9%	-5.3%	0.2%
Scotland	North Lanarkshire	0.6%	-1.5%	0.0%
Scotland	Midlothian	3.6%	-8.7%	-0.2%
Scotland	Na h-Eileanan Siar	-0.3%	0.0%	-0.3%
Scotland	Dumfries and Galloway	0.3%	-1.9%	-0.3%
Scotland	Perth and Kinross	1.6%	-5.9%	-0.4%
Scotland	City of Edinburgh	-2.5%	5.6%	-0.4%
Scotland	Argyll and Bute	0.4%	-2.3%	-0.5%
Scotland	Moray	0.2%	-2.1%	-0.5%
Scotland	Inverclyde	0.5%	-4.4%	-0.8%
Scotland	Fife	1.2%	-6.2%	-0.9%
Scotland	Aberdeenshire	1.9%	-8.4%	-0.9%
Scotland	East Ayrshire	1.2%	-5.9%	-1.0%
Scotland	Angus	1.6%	-8.1%	-1.1%
Scotland	Dundee City	-1.5%	-1.8%	-2.2%
Scotland	South Ayrshire	0.1%	-6.4%	-2.3%
Scotland	Stirling	-0.9%	-5.7%	-3.2%
North East	Northumberland	2.3%	2.2%	2.8%
North East	South Tyneside	1.8%	-1.7%	1.3%
North East	North Tyneside	1.3%	0.0%	1.3%
North East	Darlington	-0.3%	3.8%	1.0%
North East	Gateshead	-0.5%	2.2%	0.3%
North East	Middlesbrough	-0.2%	1.4%	0.2%
North East	Sunderland	-0.7%	1.2%	-0.2%
North East	Redcar and Cleveland	0.8%	-4.0%	-0.2%
North East	County Durham	1.0%	-4.5%	-0.3%
North East	Newcastle upon Tyne	-2.2%	4.9%	-0.4%
North East	Stockton-on-Tees	-0.4%	-1.1%	-0.8%
North East	Hartlepool	0.6%	-6.5%	-1.5%
Yorkshire and The Humber	Selby	6.0%	-11.2%	1.9%
Yorkshire and The Humber	Calderdale	0.1%	3.0%	1.2%
Yorkshire and The Humber	Barnsley	1.6%	-3.0%	0.8%
Yorkshire and The Humber	Leeds	-1.6%	6.1%	0.8%
Yorkshire and The Humber	Richmondshire	1.6%	-7.7%	0.4%
Yorkshire and The Humber	Sheffield	-0.5%	2.7%	0.2%
Yorkshire and The Humber	Doncaster	0.6%	-2.0%	0.0%
Yorkshire and The Humber	Kirklees	1.4%	-4.9%	-0.2%
Yorkshire and The Humber	East Riding of Yorkshire	1.8%	-5.7%	-0.2%
Yorkshire and The Humber	Harrogate	0.8%	-2.6%	-0.2%

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
Scotland	Falkirk	0.6%	-5.2%	-1.3%
Scotland	Scottish Borders	1.0%	-6.1%	-1.3%
Yorkshire and The Humber	Bradford	0.3%	-2.1%	-0.4%
Yorkshire and The Humber	Wakefield	0.0%	-2.3%	-0.8%
Yorkshire and The Humber	York	-0.2%	-2.2%	-0.9%
Yorkshire and The Humber	North East Lincolnshire	0.4%	-5.3%	-1.4%
Yorkshire and The Humber	North Lincolnshire	-0.1%	-4.0%	-1.6%
Yorkshire and The Humber	Scarborough	0.9%	-6.9%	-1.6%
Yorkshire and The Humber	Hambleton	-0.3%	-7.6%	-2.7%
Yorkshire and The Humber	Ryedale	-0.3%	-10.9%	-4.1%
Yorkshire and The Humber	Craven	-1.8%	-6.3%	-4.1%
North West	Stockport	1.9%	5.0%	3.7%
North West	Trafford	0.5%	8.2%	3.6%
North West	Warrington	-1.1%	8.4%	2.6%
North West	Bury	2.1%	1.1%	2.4%
North West	Allerdale	3.7%	-4.2%	2.1%
North West	Tameside	1.9%	-0.4%	1.8%
North West	Wirral	2.5%	-2.7%	1.6%
North West	Rochdale	1.3%	0.8%	1.5%
North West	Manchester	-2.4%	9.8%	1.5%
North West	Wyre	2.8%	-7.0%	1.4%
North West	St. Helens	1.4%	-0.7%	1.2%
North West	Bolton	0.5%	2.0%	1.1%
North West	Wigan	1.3%	-0.9%	1.0%
North West	Halton	-0.6%	3.6%	0.9%
North West	Salford	-2.5%	8.6%	0.8%
North West	Chorley	3.0%	-8.1%	0.6%
Yorkshire and The Humber	Kingston upon Hull, City of	-0.9%	1.6%	-0.2%
Yorkshire and The Humber	Rotherham	-0.4%	0.1%	-0.4%
North West	Oldham	0.1%	0.9%	0.4%
North West	Carlisle	-0.7%	2.0%	0.1%
North West	Liverpool	-1.1%	3.6%	0.1%
North West	Cheshire East	0.9%	-2.3%	0.1%
North West	Preston	-2.0%	3.7%	-0.5%
North West	Burnley	0.5%	-3.4%	-0.5%
North West	Sefton	1.5%	-7.1%	-0.6%
North West	Copeland	-1.1%	0.9%	-0.7%
North West	Rossendale	1.6%	-7.9%	-0.8%
North West	South Ribble	1.3%	-6.0%	-0.8%
North West	Knowsley	-1.7%	1.6%	-1.2%
North West	Lancaster	0.4%	-4.6%	-1.2%
North West	West Lancashire	1.0%	-9.1%	-1.4%
North West	Eden	-0.7%	-1.9%	-1.5%
North West	Pendle	0.9%	-9.0%	-1.8%
North West	Hyndburn	0.0%	-6.2%	-2.1%
North West	Barrow-in-Furness	-1.1%	-2.8%	-2.2%
North West	Blackburn with Darwen	-0.6%	-5.2%	-2.4%
North West	Blackpool	-0.1%	-8.8%	-3.1%
North West	Ribble Valley	-1.5%	-7.2%	-4.4%
North West	Fylde	-2.3%	-8.7%	-5.5%
Wales	Vale of Glamorgan	3.4%	-5.4%	2.1%
Wales	Caerphilly	2.4%	-3.0%	1.6%
Wales	Torfaen	1.9%	-2.4%	1.2%
Wales	Isle of Anglesey	1.6%	-3.2%	0.7%

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand	Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
North West	South Lakeland	2.2%	-5.3%	0.4%	Wales	Conwy	1.4%	-3.3%	0.5%
North West	Cheshire West and Chester	1.1%	-1.7%	0.4%	Wales	Ceredigion	0.8%	-1.3%	0.4%
Wales	Bridgend	1.6%	-4.9%	0.1%	West Midlands	Worcester	0.1%	1.9%	1.0%
Wales	Rhondda Cynon Taff	1.3%	-3.8%	0.1%	West Midlands	Coventry	-1.5%	6.4%	0.8%
Wales	Blaenau Gwent	1.4%	-5.9%	-0.2%	West Midlands	Staffordshire Moorlands	2.4%	-6.1%	0.8%
Wales	Pembrokeshire	0.3%	-1.7%	-0.2%	West Midlands	Cannock Chase	1.0%	-1.6%	0.4%
Wales	Neath Port Talbot	0.9%	-3.6%	-0.4%	West Midlands	Sandwell	-0.2%	1.8%	0.4%
Wales	Gwynedd	0.2%	-3.0%	-0.6%	West Midlands	Birmingham	-1.4%	5.7%	0.2%
Wales	Newport	-1.5%	1.9%	-0.7%	West Midlands	Malvern Hills	2.9%	-12.3%	0.1%
Wales	Carmarthenshire	0.7%	-4.4%	-0.7%	West Midlands	Stratford-on-Avon	1.9%	-5.3%	0.1%
Wales	Monmouthshire	2.0%	-9.1%	-0.7%	West Midlands	Wolverhampton	-0.2%	0.6%	0.0%
Wales	Swansea	-0.7%	-0.7%	-0.9%	West Midlands	East Staffordshire	1.1%	-4.2%	-0.4%
Wales	Merthyr Tydfil	0.7%	-4.6%	-1.0%	West Midlands	Stafford	1.4%	-6.3%	-0.5%
Wales	Cardiff	-2.8%	4.5%	-1.0%	West Midlands	Redditch	-0.2%	-1.0%	-0.6%
Wales	Powys	0.3%	-6.5%	-1.5%	West Midlands	North Warwickshire	-2.2%	3.1%	-1.0%
Wales	Flintshire	-0.1%	-3.5%	-1.7%	West Midlands	Stoke-on-Trent	-1.1%	-0.7%	-1.4%
Wales	Denbighshire	-0.1%	-6.0%	-2.4%	West Midlands	Rugby	-1.6%	0.5%	-1.4%
Wales	Wrexham	0.6%	-7.7%	-2.7%	West Midlands	Herefordshire, County of	0.3%	-6.1%	-1.6%
West Midlands	Nuneaton and Bedworth	6.2%	0.9%	6.4%	West Midlands	Shropshire	1.2%	-8.0%	-1.7%
West Midlands	Wyre Forest	4.8%	-3.6%	3.9%	West Midlands	Wychavon	0.5%	-8.6%	-2.6%
West Midlands	Newcastle-under-Lyme	4.5%	-3.0%	3.7%	West Midlands	Telford and Wrekin	-0.8%	-4.3%	-2.9%
West Midlands	Bromsgrove	2.2%	4.7%	3.6%	East Midlands	Broxtowe	6.5%	-0.4%	6.4%
West Midlands	Tamworth	2.5%	2.5%	3.2%	East Midlands	Gedling	6.5%	-5.3%	5.2%
West Midlands	South Staffordshire	4.9%	-7.6%	2.8%	East Midlands	Blaby	2.4%	8.9%	5.0%
West Midlands	Lichfield	2.7%	-0.3%	2.6%	East Midlands	Oadby and Wigston	5.1%	-3.7%	4.0%
West Midlands	Warwick	1.0%	3.5%	2.3%	East Midlands	Rushcliffe	5.5%	-6.4%	3.3%
West Midlands	Dudley	1.6%	0.4%	1.8%	East Midlands	South Derbyshire	6.6%	-12.7%	2.6%

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand	Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
West Midlands	Walsall	0.5%	4.1%	1.7%	East Midlands	North East Derbyshire	3.4%	-8.2%	1.5%
West Midlands	Solihull	-0.3%	5.0%	1.7%	East Midlands	Harborough	3.5%	-8.1%	1.3%
East Midlands	Erewash	3.5%	-8.5%	1.2%	East of England	Maldon	11.2%	-11.5%	8.3%
East Midlands	North Kesteven	3.1%	-8.3%	0.7%	East of England	St Albans	5.9%	2.2%	6.6%
East Midlands	Newark and Sherwood	2.4%	-5.4%	0.6%	East of England	Dacorum	0.8%	11.7%	5.8%
East Midlands	High Peak	2.7%	-9.4%	0.4%	East of England	East Hertfordshire	5.8%	-4.3%	4.6%
East Midlands	Leicester	-1.0%	4.0%	0.3%	East of England	Uttlesford	6.1%	-10.4%	3.0%
East Midlands	Mansfield	0.8%	-3.1%	-0.2%	East of England	Broxbourne	5.3%	-10.7%	2.6%
East Midlands	West Northamptonshire	0.1%	-1.0%	-0.3%	East of England	Watford	-0.8%	8.6%	2.6%
East Midlands	West Lindsey	2.8%	-9.9%	-0.6%	East of England	Brentwood	3.0%	-1.6%	2.5%
East Midlands	North Northamptonshire	1.7%	-6.5%	-0.6%	East of England	Three Rivers	4.4%	-6.5%	2.4%
East Midlands	Charnwood	0.3%	-3.7%	-0.7%	East of England	Epping Forest	4.6%	-8.9%	2.1%
East Midlands	Amber Valley	1.5%	-7.9%	-0.8%	East of England	Babergh	4.9%	-10.7%	1.9%
East Midlands	Nottingham	-2.9%	4.8%	-1.0%	East of England	North Hertfordshire	4.1%	-8.3%	1.6%
East Midlands	Derby	-3.2%	4.7%	-1.2%	East of England	Castle Point	3.8%	-10.0%	1.5%
East Midlands	East Lindsey	0.4%	-5.8%	-1.3%	East of England	Tendring	3.1%	-7.6%	1.4%
East Midlands	Melton	1.3%	-11.1%	-1.4%	East of England	Ipswich	0.5%	2.1%	1.4%
East Midlands	Boston	0.1%	-4.1%	-1.4%	East of England	Braintree	5.0%	-12.1%	1.3%
East Midlands	Derbyshire Dales	0.6%	-8.0%	-1.4%	East of England	Central Bedfordshire	4.2%	-9.4%	1.2%
East Midlands	Hinckley and Bosworth	1.0%	-7.1%	-1.4%	East of England	Broadland	0.0%	3.5%	1.2%
East Midlands	Ashfield	0.8%	-6.4%	-1.4%	East of England	Fenland	2.5%	-4.6%	1.1%
East Midlands	Rutland	1.1%	-9.4%	-1.9%	East of England	Basildon	1.6%	-1.8%	1.0%
East Midlands	Chesterfield	-0.9%	-2.9%	-1.9%	East of England	East Cambridgeshire	5.1%	-10.5%	1.0%
East Midlands	South Holland	0.9%	-9.4%	-2.0%	East of England	Norwich	-1.7%	5.2%	0.5%
East Midlands	North West Leicestershire	-2.1%	-0.1%	-2.2%	East of England	Rochford	3.3%	-13.2%	0.2%
East Midlands	South Kesteven	1.1%	-11.3%	-2.8%	East of England	Luton	-0.7%	2.7%	0.1%
East Midlands	Bolsover	0.4%	-13.9%	-3.6%	East of England	South Norfolk	1.8%	-5.8%	0.0%

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand	Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
East Midlands	Lincoln	-2.4%	-2.8%	-3.8%	East of England	Mid Suffolk	2.5%	-8.4%	-0.1%
East Midlands	Bassetlaw	-0.1%	-11.3%	-4.6%	East of England	King's Lynn and West Norfolk	1.0%	-4.1%	-0.3%
East of England	Bedford	2.8%	-8.8%	-0.5%	South West	South Gloucestershire	-0.1%	2.4%	0.8%
East of England	Peterborough	-0.9%	0.6%	-0.6%	South West	Torbay	0.5%	0.7%	0.7%
East of England	Southend-on-Sea	3.8%	-14.8%	-0.7%	South West	Bristol, City of	-2.5%	7.9%	0.7%
East of England	Huntingdonshire	2.4%	-8.1%	-0.8%	South West	Sedgemoor	2.3%	-6.0%	0.5%
East of England	West Suffolk	0.3%	-3.0%	-0.9%	South West	Plymouth	-0.4%	2.1%	0.3%
East of England	Hertsmere	-1.5%	0.8%	-1.2%	South West	Cornwall	0.8%	-2.3%	0.2%
East of England	North Norfolk	0.4%	-7.2%	-1.3%	South West	Gloucester	-0.1%	0.7%	0.1%
East of England	Breckland	1.6%	-9.5%	-1.4%	South West	Forest of Dean	2.9%	-11.7%	0.1%
East of England	Thurrock	0.7%	-5.8%	-1.4%	South West	Bournemouth, Christchurch and Poole	0.2%	-0.9%	-0.1%
East of England	Chelmsford	-0.9%	-2.1%	-1.6%	South West	Wiltshire	2.3%	-7.4%	-0.3%
East of England	Great Yarmouth	0.4%	-6.1%	-1.7%	South West	Cotswold	2.4%	-8.3%	-0.4%
East of England	South Cambridgeshire	-0.3%	-3.7%	-2.1%	South West	South Somerset	0.9%	-4.1%	-0.6%
East of England	Stevenage	-2.1%	-0.6%	-2.3%	South West	Bath and North East Somerset	-0.6%	-1.3%	-1.1%
East of England	Colchester	0.1%	-6.4%	-2.3%	South West	North Devon	-1.3%	0.3%	-1.2%
East of England	Welwyn Hatfield	-4.4%	4.8%	-2.6%	South West	Dorset	0.8%	-7.0%	-1.4%
East of England	East Suffolk	0.4%	-8.9%	-2.6%	South West	Exeter	-3.7%	5.0%	-1.4%
East of England	Harlow	0.1%	-9.3%	-2.9%	South West	Stroud	0.7%	-6.9%	-1.5%
East of England	Cambridge	-4.5%	0.5%	-4.2%	South West	Tewkesbury	-1.1%	-1.9%	-1.7%
South West	West Devon	5.5%	-6.7%	4.0%	South West	South Hams	-0.7%	-4.2%	-1.9%
South West	Cheltenham	1.2%	4.1%	2.7%	South West	Somerset West and Taunton	-0.5%	-3.5%	-2.0%
South West	Torridge	4.0%	-5.4%	2.5%	London	Wandsworth	11.2%	6.5%	12.6%
South West	Mendip	3.7%	-6.6%	1.9%	London	Richmond upon Thames	10.3%	2.0%	11.0%
South West	Teignbridge	2.4%	-2.4%	1.7%	London	Merton	8.1%	3.2%	9.0%
South West	East Devon	2.4%	-3.6%	1.5%	London	Lewisham	7.4%	1.3%	7.7%
South West	Mid Devon	3.0%	-5.9%	1.1%	London	Bromley	8.5%	-3.2%	7.6%

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand	Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
South West	Swindon	0.1%	1.9%	1.0%	London	Harrow	7.0%	0.4%	7.0%
South West	North Somerset	3.0%	-5.9%	1.0%	London	Waltham Forest	6.7%	1.5%	7.0%
London	Ealing	4.1%	6.9%	6.3%	South East	Waverley	10.4%	-12.7%	6.0%
London	Barnet	5.2%	4.4%	6.2%	South East	Spelthorne	6.7%	-5.4%	5.0%
London	Haringey	4.3%	3.5%	5.1%	South East	Tunbridge Wells	6.3%	-6.4%	4.1%
London	Redbridge	4.6%	1.7%	4.9%	South East	Arun	5.2%	-9.6%	3.0%
London	Kensington and Chelsea	2.7%	6.4%	4.7%	South East	Lewes	5.0%	-8.8%	2.8%
London	Hackney	1.4%	9.2%	4.0%	South East	Eastleigh	3.3%	-1.5%	2.6%
London	Enfield	3.6%	0.2%	3.7%	South East	Gosport	4.5%	-8.2%	2.3%
London	Greenwich	3.4%	0.1%	3.5%	South East	Tandridge	5.1%	-10.5%	2.2%
London	Croydon	3.6%	-0.6%	3.4%	South East	Adur	5.0%	-12.0%	1.9%
London	Sutton	4.0%	-2.4%	3.4%	South East	East Hampshire	5.9%	-12.4%	1.8%
London	Bexley	4.3%	-3.5%	3.4%	South East	Hart	3.9%	-7.8%	1.5%
London	Hammersmith and Fulham	-1.0%	9.1%	2.6%	South East	Basingstoke and Deane	2.4%	-3.9%	0.9%
London	Newham	1.3%	5.0%	2.3%	South East	Elmbridge	7.4%	-17.4%	0.9%
London	City of London	-15.7%	21.1%	2.0%	South East	Medway	3.2%	-7.2%	0.7%
London	Brent	0.4%	4.7%	1.8%	South East	Thanet	2.4%	-6.2%	0.7%
London	Barking and Dagenham	1.3%	2.5%	1.7%	South East	Havant	1.0%	-0.8%	0.7%
London	Lambeth	0.2%	5.4%	1.7%	South East	Gravesham	2.4%	-6.4%	0.5%
London	Havering	1.9%	-1.8%	1.5%	South East	Tonbridge and Malling	1.8%	-3.4%	0.5%
London	Kingston upon Thames	0.1%	1.0%	0.5%	South East	Rushmoor	1.2%	-1.8%	0.4%
London	Islington	-4.8%	13.4%	0.5%	South East	Southampton	-0.9%	2.9%	0.3%
London	Southwark	-3.1%	9.6%	0.5%	South East	Mid Sussex	4.9%	-13.7%	0.3%
London	Hounslow	-0.8%	3.2%	0.1%	South East	Hastings	2.4%	-7.6%	0.2%
London	Camden	-5.3%	11.2%	-0.4%	South East	Isle of Wight	1.0%	-3.8%	0.1%
London	Hillingdon	-1.9%	2.2%	-1.0%	South East	Wokingham	1.5%	-3.4%	-0.1%
London	Tower Hamlets	-5.6%	8.1%	-1.9%	South East	Buckinghamshire	2.6%	-7.8%	-0.2%

© 2021 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand	Region	Local authority	Net change in local demand due to WFH	Potential longer term change in employment	Total combined effect on local demand
London	Westminster	-11.0%	11.5%	-4.4%	South East	Wealden	2.8%	-10.4%	-0.3%
South East	Epsom and Ewell	8.0%	-1.6%	7.5%	South East	Fareham	1.0%	-3.3%	-0.3%
South East	Horsham	3.3%	-12.5%	-0.7%	South East	Windsor and Maidenhead	-0.4%	-7.6%	-3.4%
South East	Reigate and Banstead	0.8%	-4.9%	-0.7%	South East	Vale of White Horse	-1.0%	-5.6%	-3.4%
South East	Woking	0.7%	-4.1%	-0.8%	South East	South Oxfordshire	4.4%	-20.5%	-3.7%
South East	Reading	-3.1%	4.6%	-0.8%	South East	Crawley	-4.1%	0.6%	-3.8%
South East	Brighton and Hove	-0.3%	-1.8%	-0.9%	South East	Runnymede	-3.0%	-3.1%	-4.1%
South East	Slough	-1.8%	1.9%	-1.0%	South East	Mole Valley	-3.1%	-2.7%	-4.3%
South East	Maidstone	0.6%	-5.0%	-1.1%	South East	West Berkshire	-2.9%	-4.4%	-5.2%
South East	Rother	2.7%	-15.5%	-1.3%	South East	Winchester	-3.9%	-2.8%	-5.5%
South East	Worthing	0.3%	-4.3%	-1.4%	South East	Oxford	-4.3%	-7.3%	-8.0%
South East	Cherwell	1.4%	-6.9%	-1.4%	South East	Surrey Heath	0.1%	-6.4%	-2.5%
South East	Folkestone and Hythe	1.2%	-9.8%	-1.5%	South East	Dover	0.5%	-11.3%	-2.7%
South East	Guildford	0.3%	-5.4%	-1.6%	South East	Dartford	-1.7%	-2.3%	-2.7%
South East	Swale	2.0%	-10.0%	-1.6%	South East	Sevenoaks	1.2%	-12.9%	-2.9%
South East	Eastbourne	0.6%	-8.3%	-1.8%	South East	Portsmouth	-2.6%	-1.1%	-3.1%
South East	New Forest	1.4%	-8.5%	-1.8%	South East	Bracknell Forest	-3.3%	0.3%	-3.2%
South East	Chichester	0.7%	-6.7%	-1.8%	South East	Canterbury	1.8%	-11.1%	-1.9%
South East	Test Valley	2.4%	-9.0%	-1.8%	South East	Ashford	0.7%	-8.1%	-1.9%
South East	West Oxfordshire	3.0%	-10.7%	-1.9%	South East	Milton Keynes	-1.9%	-0.2%	-2.0%

Appendix 2

Our modelling framework

We used a series of models to estimate the impact a permanent shift to partially working from home will have on the UK economy.

Shifts in business locations

In order to estimate the potential shift of businesses to larger business hubs due to the widespread adoption of WFH we used an algorithm that re-allocates workers between different employment zones.

Our analysis focused on office-based jobs in businesses that could benefit from moving to locations with a greater business concentration as they reap the associated agglomeration benefits. We therefore restrict our modelling to the financial, professional and business services sectors[13].

Building on our earlier work[14], we used data on the distribution of employment across 8480 geographical areas[15]. For each area i we estimated the number of jobs that could switch to a hybrid work pattern of partial WFH a_i, as well as the full-time equivalent measure of the proportion of time these workers spend away from the office, h_i. We also computed the number of workers that could switch to permanent home working, hp_i

For every area i, which initially starts with a level of employment equal to e_i, we then computed the level of additional capacity that exists within that zone due to homeworking as:

$$Capacity_i = e_i - hp_i - h_i$$

Intuitively, this measure corresponds to the number of available workspaces that are on average left unused due to homeworking.

Our next step was to use an algorithm that re-allocated workers between geographical areas based on the relative difference in their economic mass, so that workers moved to the areas with a higher concentration of business activity. We limited any shifts to be within a 60-minute drive-time of businesses' original location to mitigate the risk of creating a pattern of employment that is inconsistent with the current pattern of residence[16].

We identified the areas that are within 60 minutes of area i, as the potential candidate locations for the shift in employment to area i. We then allocated the total number of workers a_i to the areas with the highest levels of connectivity to area i such that the total capacity of each area i is equal to e_i.

Productivity and economic density

To estimate the impact changes in business location will have on productivity we assume that the productivity of an area depends on the level of local employment and that it is positively affected by the employment levels of areas in close proximity. Formally, we follow the methodology of Graham and Gibbons (2019)[17], by computing the mean effective density (MED) for each area, which is the key factor driving the agglomeration impact on productivity.

The MED index for zone i is defined as:

$$MED_i = A \sum_{j=1}^{N} \frac{E_j}{d_{i,j}^{\alpha}}$$

Where A is a constant, E_j is the employment in area j, and $d_{(i,j)}$ is the drive-time between the population centroids of areas i and j. We use a value for the parameter α equal to 1.746, as per estimates in Graham, Gibbons and Martin (2010)[18].

The MED for an area is the key parameter driving productivity, P in each area i, which is given by

$$P_i = C_i MED^{\rho}_i$$

Here, the value of C is the area-specific constant which captures the idiosyncratic factors driving the productivity of workers, such as the sectoral mix, the type of work undertaken etc. The value of ρ we used is 0.083, which was also sourced from Graham, Gibbons and Martin (2010).

13. SIC 2007 sections K, M and N. We excluded some of the subsectors that were likely to stay on the local high street serving the local customer base.
14. See The future of towns and cities post COVID-19 - KPMG United Kingdom
15. Employment and productivity modelling are undertaken at the 2011 MSOA (Middle Super Output Area) level for England and Wales, and at the Intermediate zone level for Scotland, leaving 8480 separate zones which together make up the entire area of mainland UK.
16. In the longer run, people may choose to move so that they can optimise the experience from their residential location and commuting to the office, but in this exercise we assumed they did not change the location of their main residence.
17. Graham, Daniel J., and Stephen Gibbons. "Quantifying Wider Economic Impacts of agglomeration for transport appraisal: Existing evidence and future directions." Economics of Transportation 19 (2019): 100121.
18. Graham, Daniel J., Stephen Gibbons, and Ralf Martin. "The spatial decay of agglomeration economies: estimates for use in transport appraisal." (2010).

Demand for local services

We estimated the impact of increased WFH on the demand for services in local high streets using data on earnings and the numbers of employees living and working in different areas of the UK from the Annual Survey of Hours and Earnings (ASHE).

We assume that workers who can, will be working from home for an average of two days per week. We therefore used a 40% share of the employees who worked from home in 2020, when all workers who could work from home were advised to do so due to the impact of the COVID-19 pandemic. This served to approximate the variation in WFH in each area due to differences in sectoral make up.

The net impact of WFH for area i was estimated as follows, where E denotes the number of workers in employment in location i, while R denotes the number of residents in employment living at that location:

$$m_i = 0.4 * s_i * \frac{(R_i w_r - E_i w_e)}{E_i w_e}$$

Here, s denotes the share of workers who were able to work from home in 2020, while w_r and w_e are the average wages of the residents and employees, respectively.

Finally we estimated the impact business relocations will have on local high streets by adding E'_i, which is the level of employment in area i after business relocation takes place. This modifies the overall impact to m'_i:

$$m'_i = 0.4 * s_i * \left[\frac{(R_i w_r - E_i w_e) + w_e(E'_i - E_i)}{E_i w_e}\right]$$

© 2021 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Contact details

Yael Selfin
Chief Economist
KPMG in the UK
T +44 (0)776 6362 369
E yael.selfin@kpmg.co.uk

Dennis Tatarkov
Senior Economist
KPMG in the UK
T +44 (0)207 3112 210
E dennis.tatarkov@kpmg.co.uk

Michal Stelmach
Senior Economist
KPMG in the UK
T +44 (0)20 3197 1086
E michal.stelmach@kpmg.co.uk

kpmg.com/uk/en/macroeconomics

CREATE | CRT137806A | August 2021