EM3 Coronavirus intelligence

Metro —— Dynamics

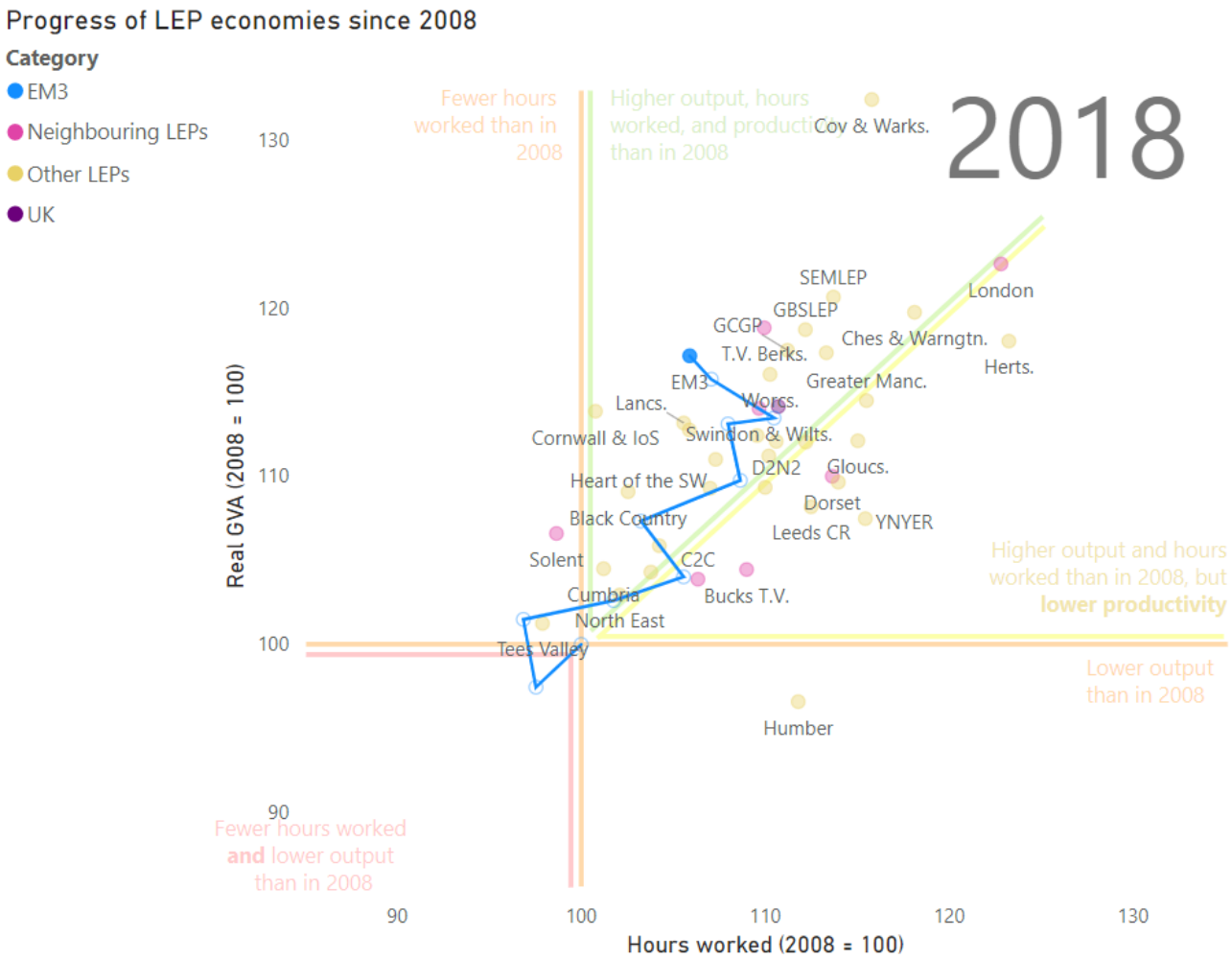
Summary

Key points from research

- **Enterprise M3 recovered strongly from the last economic shock.** The economic shock currently being experienced is very different, and therefore it is hard to draw direct lessons in the short-term. Nonetheless, in the longer term this suggests the area has sound economic fundamentals and may be better able to recover. Continuing to improve productivity will be a key objective once the initial shock is over.
- **The accommodation and food**, **education**, **and construction sectors are set to be hardest hit in this quarter**, according to the Office for Budget Responsibility (OBR). In EM3, these sectors constitute a significant proportion of employment, and construction has been the fastest growth sector by value. It is also a sector which has seen very high rates of furlough nationwide, despite government advice to keep working.
- **EM3 is relatively well set up for home working**, with some of its largest sectors by value (IT and professional services) and biggest occupational groups more able to work from home. Nonetheless, there are significant numbers of employees in the retail and care sectors, where this is much less possible.
- **The data suggests the first peak has passed in the area**, correlated with dramatic changes in movement patterns since lockdown was imposed on the 23rd March. At the same time, significant amounts of funding have been given out to small businesses to help them continue trading.
- **The forward path of the economic shock is likely to take a "U", or "L" shape.** There has rarely, if ever, before been so much uncertainty about the economic outlook. The shape of the recession will determine the appropriate response at different phases – resistance, recovery, and renewal. The impact will be felt very differently depending on the sector – we examine impacts across Aerospace, Digital, Advanced Manufacturing, Retail, Leisure and Tourism, and Property.

Introduction

Recovery from the last economic shock



Enterprise M3 has performed strongly since 2008, showing an ability to adapt effectively to an economic shock.

Output in EM3 only fell for one year, in 2009, and it was one of only seven LEPs to have a higher output in 2010 than in 2009. In 2011, it moved into the green section of the chart (along with Gloucestershire, Coventry and Warwickshire, Thames Valley Berkshire and D2N2). Although in 2012 it moved into the yellow segment, from 2013 onwards it has remained in the green area.

The percentage improvement in productivity over ten years, 8.1%, is low by historic standards, but high compared to the rest of the country as the UK has grappled with the "productivity problem". It is higher than all of EM3's neighbouring LEPs, and lower only than the growth seen in Coventry and Warwickshire (14.9%) and Cornwall and the Isles of Scilly (13.5%).

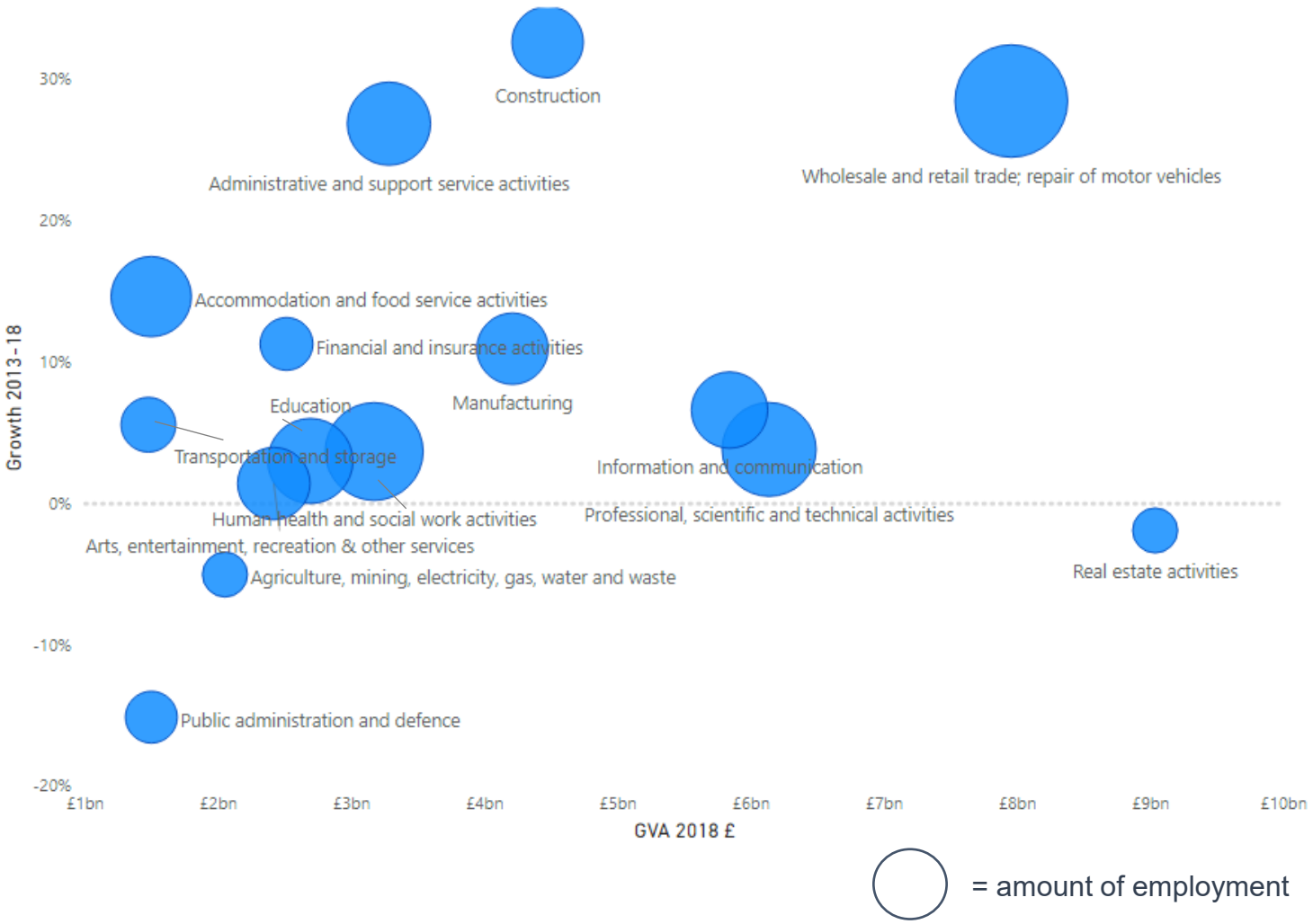
Nonetheless, two of EM3's neighbours - Thames Valley Berkshire and London - have managed to increase output by more. In the case of London, there has been no productivity improvement at all - the city has instead consistently increased working hours over the period, while converting these into output at the same rate.

This image, left, shows the path EM3 has taken between 2008 and 2018. An online version, which allows you to explore the data is available here, and an explanation of how the graph has been developed is available here.

Business exposure to Covid-19

Metro —— Dynamics

Introduction to sector mapping



Before looking in depth at key sectors, we can look at some headline national statistics to get a sense of how the national Coronavirus lockdown is affecting all broad sectors of the local economy.

Here we set out a sector map for Enterprise M3, where each bubble is a sector (broad industrial group). In total, Enterprise M3 was a £58bn economy in 2018 – this has grown by 17.1% since 2008, and 9.1% since 2013 (values given in 2016 £).

On the x-axis, we have the total GVA output of different sectors. The largest three sectors for output in EM3 are **real estate activities** (£9.0bn), **wholesale and retail** (£8.0bn), and **professional, scientific and technical activities** (£6.1bn).

On the y-axis, we have five-year GVA growth (2013-18). The three fastest growing sectors are **construction** (32.7%), **wholesale and retail** (28.5%), and **administrative and support service activities** (26.9%). Most sectors have grown, although a few – **public administration and defence** (-15.1%), **agriculture and utilities** (-5.0%), and **real estate** (-1.9%) have shrunk.

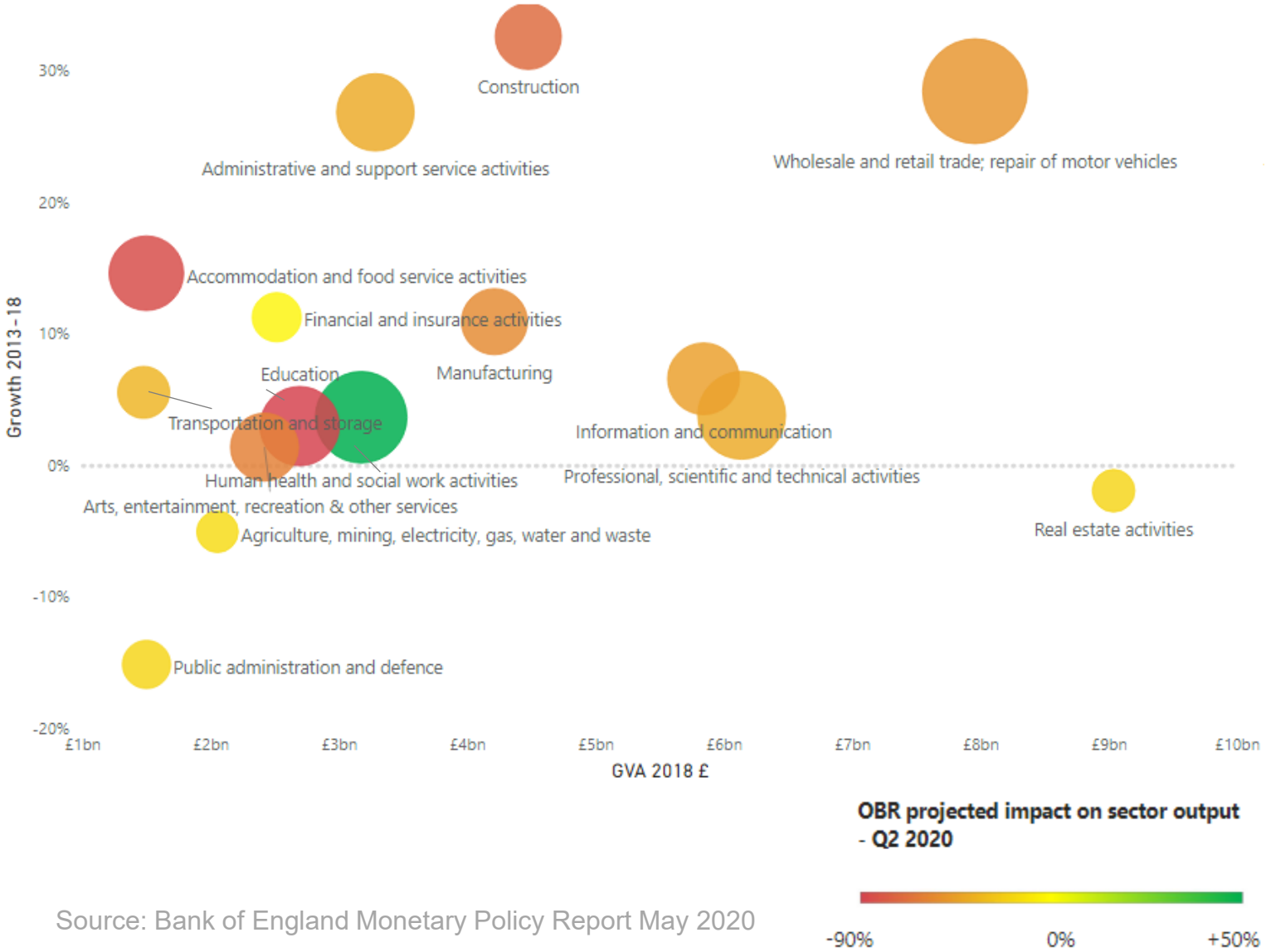
Finally, the size of the bubbles is the amount of employment in the sector, again in 2018. The three biggest sectors by employment are **wholesale and retail** (123,000), **human health and social work activities** (91,500), and **professional, scientific and technical activities** (84,000).

In the following slides, we “cast” national, sector-based data, which has been generated in response to the crisis, across the sector mix of EM3, to understand what the likely short-term impact will be.

Sources: ONS Regional Accounts, ONS Business Register and Employment Survey

OBR projected economic impact

OBR projected impact on UK sectors, by local GVA, GVA growth, and employment



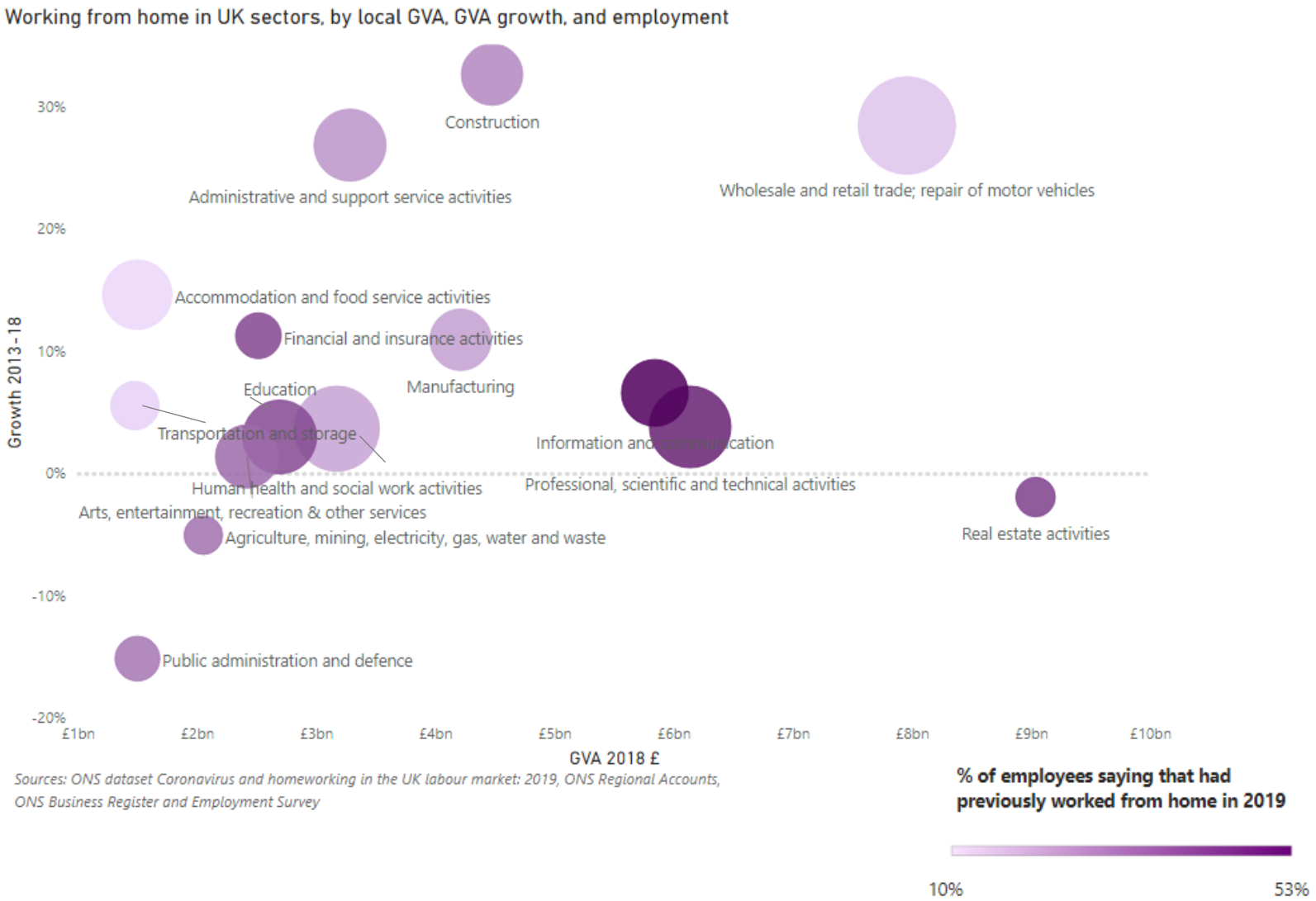
Source: Bank of England Monetary Policy Report May 2020

The Office for Budget responsibility have made projections about the impact on different sectors in Q2 of the year. The two sectors which are most affected are **education** (a 90% hit to output) and **accommodation and food service activities** (an 85% hit). We can see that neither of these sectors contributes a very large proportion of EM3's GVA output, although they are fairly large employers, together accounting for almost a sixth of the total employment.

This is less likely to be a concern in education, as most jobs (teachers) are likely to be fairly secure. The accommodation and food sector, however, is one of the most endangered, and has until recently been a higher growth sector. So far it has seen highest rates of furloughing, which could lead to high unemployment if demand does not return when the furlough scheme is wound down. **Wholesale and retail**, the most significant sector by employment is set to halve in output, and **construction**, the fastest growing sector in EM3, is also likely to be hit hard (-70%). Encouragingly, EM3's largest sector, **real estate**, is one of the less affected sectors – although a 20% drop in output is still very significant. And that may be optimistic – the Bank of England has quoted Zoopla data showing in April, the number of sales was over 80% down on a year before.

Taken together, this suggests total output may be less affected in EM3 than in some other places (though like everywhere, there will be a big hit). However, the sectors which are leading growth tend to be fairly exposed.

Ability to work from home



Sources: ONS dataset Coronavirus and homeworking in the UK labour market: 2019, ONS Regional Accounts, ONS Business Register and Employment Survey

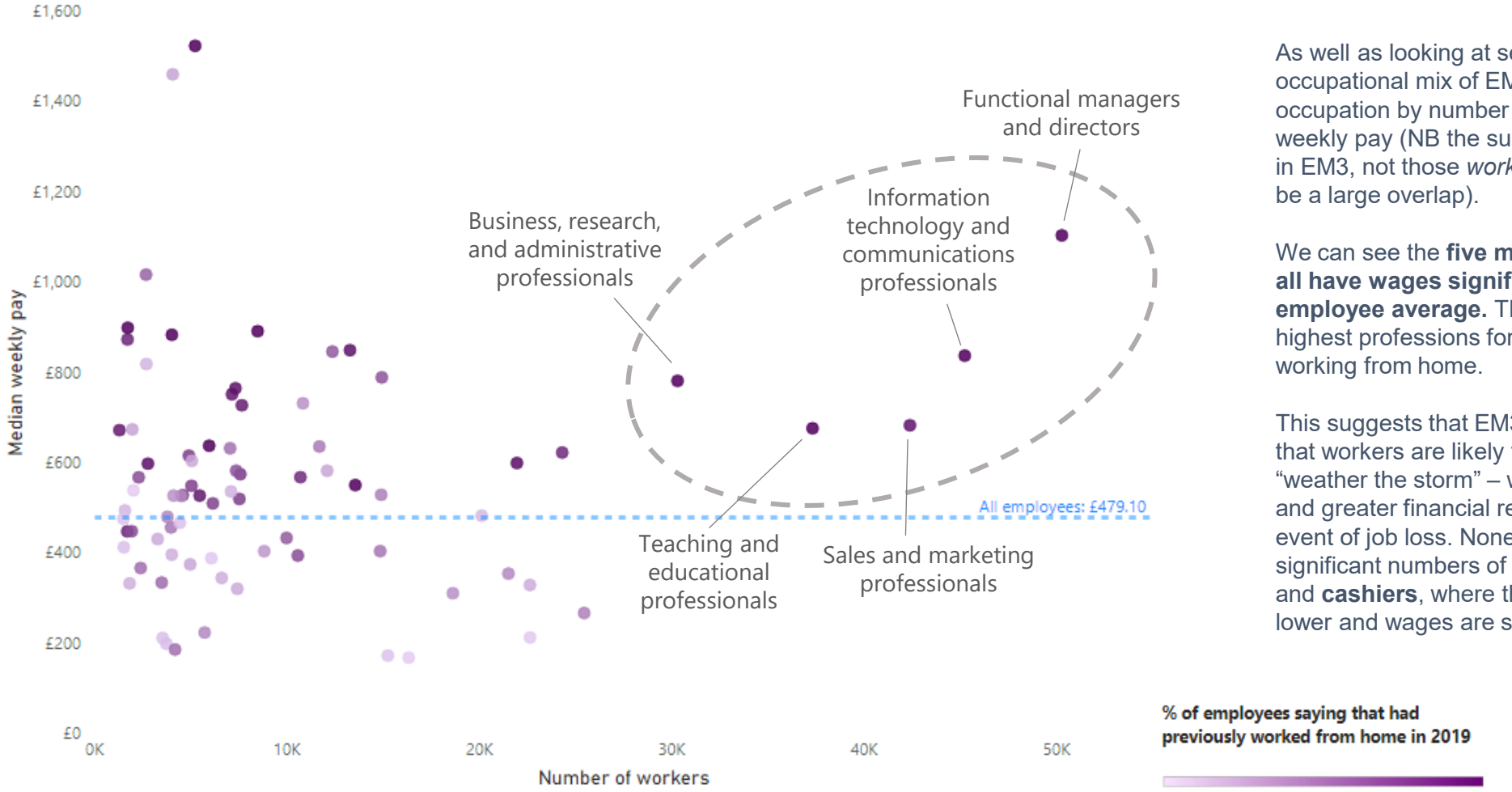
We can now look at which sectors have greater ability to work from home. This chart shows, by sector, the proportion of respondents in a 2019 UK-wide survey to say they had ever worked from home in the past.

This raises concerns about the **wholesale and retail** sector, where only 13.4% of respondents said they had ever worked from home in 2019. Although online retail has grown over recent years, and a spike has been seen since the start of lockdown, it still only accounts for 22.3% of all retailing. In terms of employment, ONS data shows that of the 67,000 people employed in retail, only 2.6% are employed in “Retail sale via mail order houses or via Internet.” **Accommodation and food services** has the lowest rates of people having worked from home before – only 10%.

More encouragingly some of EM3’s large sectors (by value) have the highest rates, meaning that homeworking is less of an adjustment – **real estate**, **professional, scientific and technical activities**, and **information and communication** are the three top sectors for homeworking. But even in the case of the latter, only 53.1% of workers had previously worked from home. The jury is still out on whether homeworking will become more established practice long-term, and if it does, whether this will contribute to increased productivity via use of new software, fewer distractions for employees, and lower business travel costs.

Workers' ability to work from home

Number of workers, Median weekly pay and % Ever work at home by Description



Sources: ONS dataset Coronavirus and homeworking in the UK labour market: 2019, ONS Annual Survey of Hours and Earnings table 14.1a, ONS Social Survey (ad hoc request)

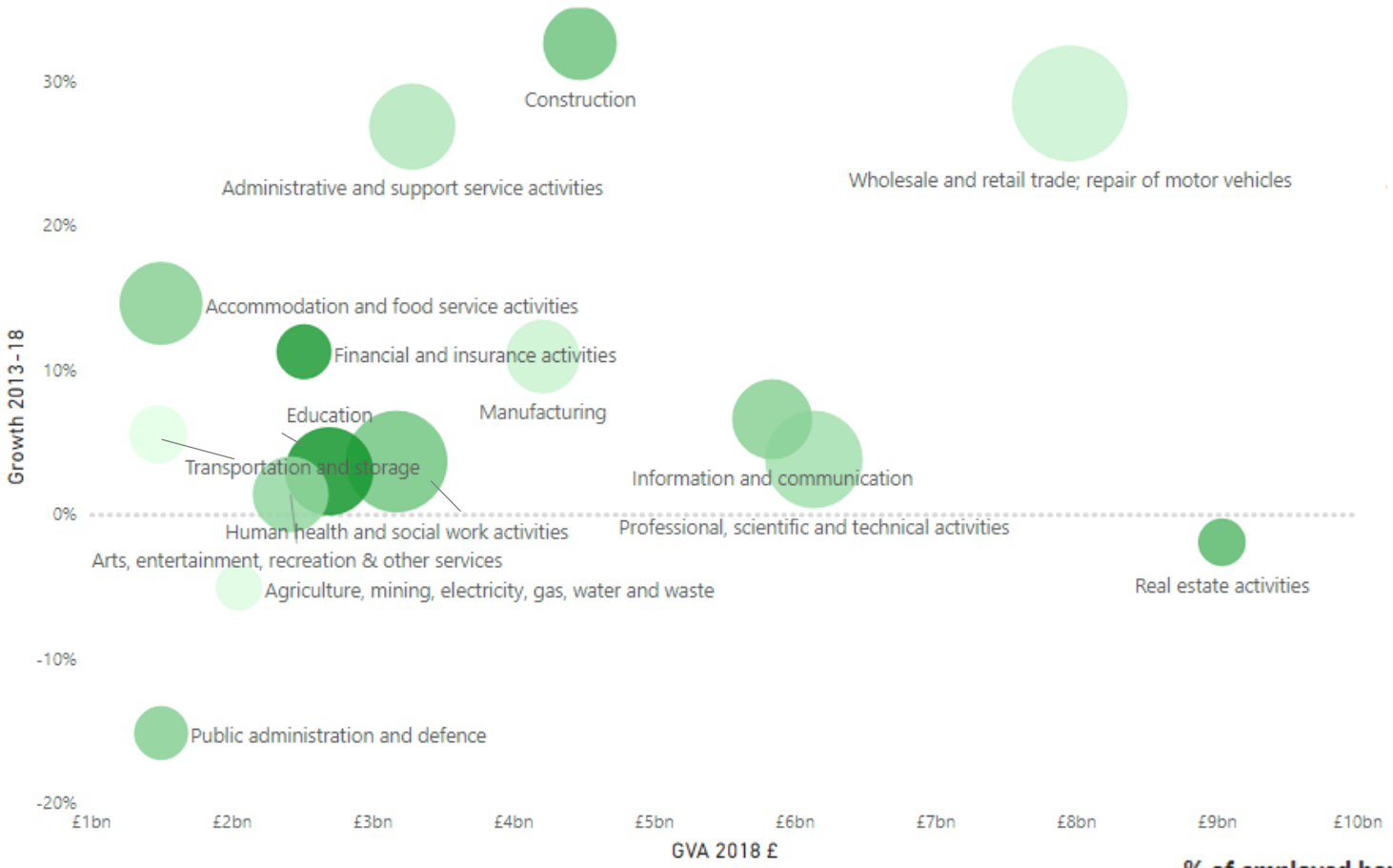
As well as looking at sectors, we can also look at the occupational mix of EM3. We have shown each occupation by number of workers and median weekly pay (NB the survey data shows people *living* in EM3, not those *working* there – although there will be a large overlap).

We can see the **five most common professions all have wages significantly over the all employee average.** They are also among the highest professions for previous experience of working from home.

This suggests that EM3's occupational mix is such that workers are likely to have been more able to "weather the storm" – with an ability to keep working and greater financial resources as a cushion in the event of job loss. Nonetheless, there are very significant numbers of occupations such as **carers** and **cashiers**, where the ability to work from home is lower and wages are significantly below average.

Parenting in the workforce

Parenting in the workforce in UK sectors, by local GVA, GVA growth, and employment



Sources: ONS dataset: Coronavirus and employment for parents in the UK, ONS Regional Accounts, ONS Business Register and Employment Sur

% of employed households which are parents of dependants

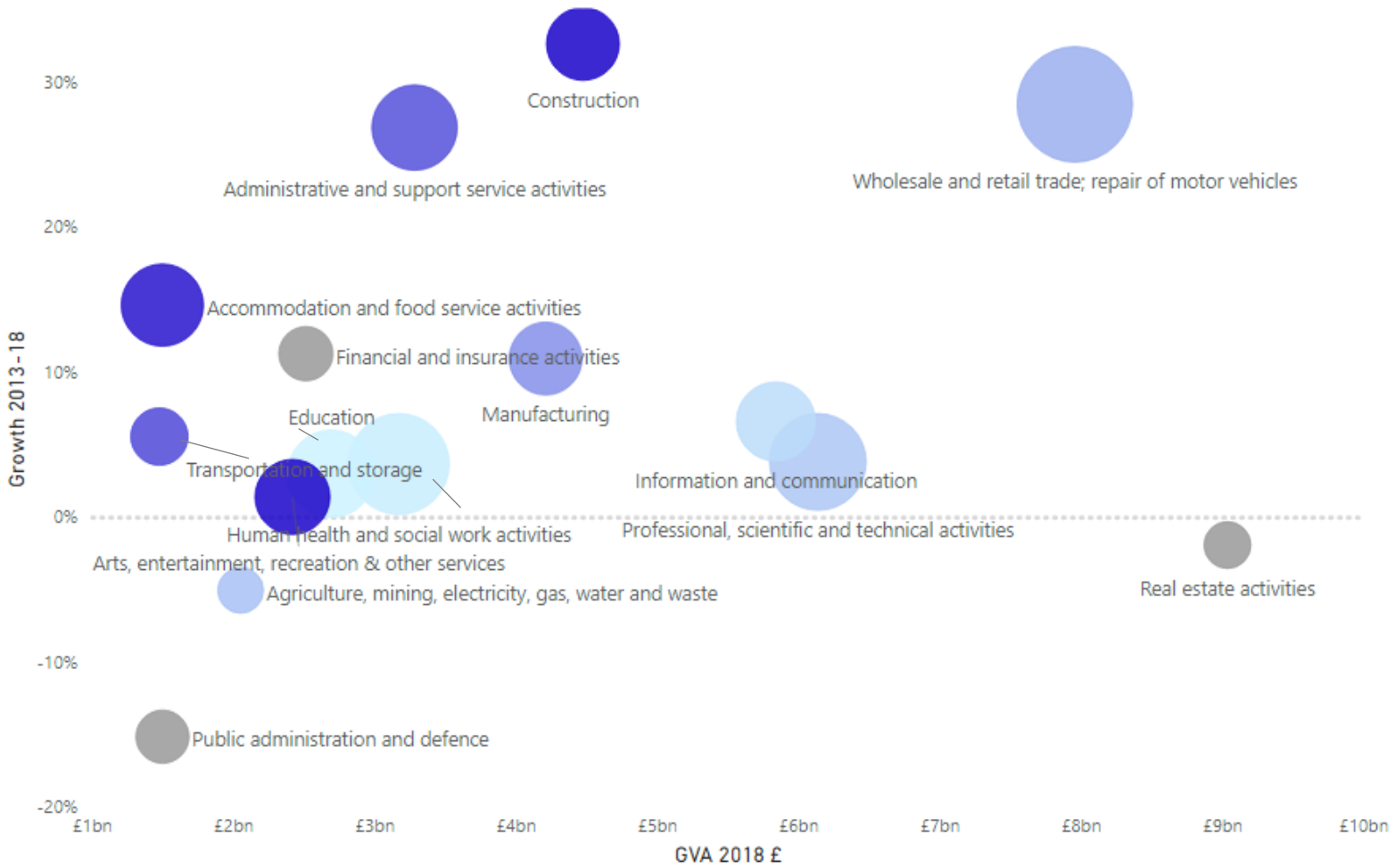
Parenting is also an important consideration, as the new requirement to home school children has added a significant burden of time to those who are working from home. Highest rates of parenting are seen in **Education**, where 46.1% of employed households are parents of dependants, and **Financial and Insurance activities** (45.5%). In two person families where only one parent is working, the impact is likely to be more limited. Rates are lowest in **transportation and storage** and **agriculture and utilities**, though neither of these are very significant sectors in EM3 in terms of GVA, growth, or employment.

The ongoing impact here is dependent upon government announcements – with news that initially reception, year 1, and year 6 will be able to return at the beginning of June. However, it seems unlikely that the burden of parenting will be significantly lifted until September.

There is also a question about annual leave – economic output tends to drop in the summer months anyway. But it seems likely that employees across the economy are taking less annual leave at the moment due to inability to travel. An economic recovery once restrictions are loosened further may be dampened if there is then a surge in employees taking leave.

Furloughing in the workforce

Proportions of employees furloughed in UK sectors (6th - 19th April 2020), by local GVA, GVA growth, and employment



% of employed workforce furloughed

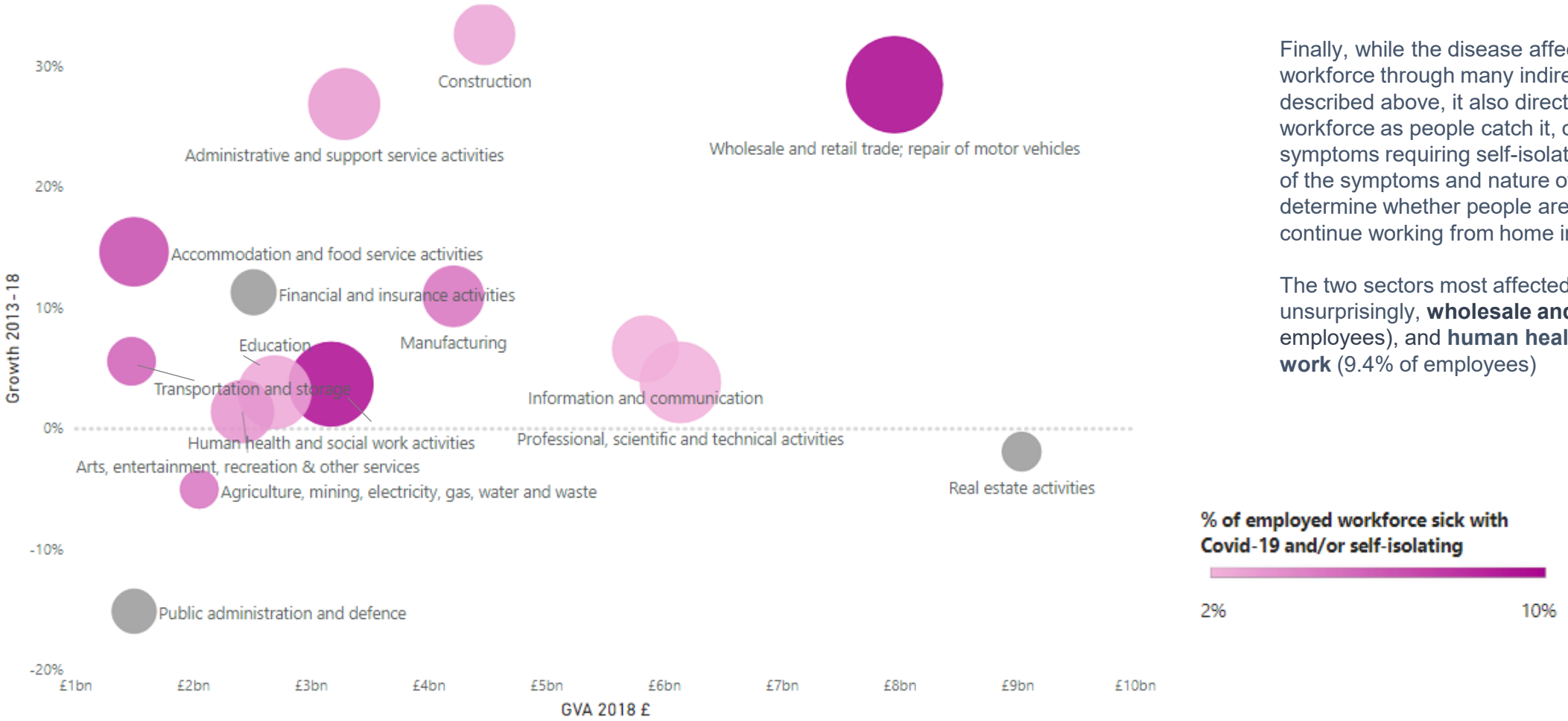
The ONS Business Impact of Covid-19 Survey is a nationwide survey of businesses to understand how different sectors are being impacted by Covid-19. Data here is from the middle of April, in weeks three and four of the lockdown.

The highest rates of furloughing have been **Construction** and **Arts, Entertainment, Recreation, and other services**, where the survey suggests almost 40% of employees have been furloughed. This is particularly striking in construction, as there has not at any stage been official government instruction to stop work. This is EM3's fastest growing sector, and the area is likely to see delays to infrastructure development as a result. **Accommodation and food services** also have high furlough rates (37.3%) – if EM3 reflects the national picture, that would mean 21,600 furloughed jobs in this sector alone.

Sources: ONS dataset: Business Impact of COVID-19 Survey, ONS Regional Accounts, ONS Business Register and Employment Survey
Data is unavailable for financial and insurance activities, real estate activities, and public administration and defence due to insufficient survey responses.

Covid-19 sickness in the workforce

Sick/self-isolating rates in UK sectors (6th - 19th April 2020), by local GVA, GVA growth, and employment



Sources: ONS dataset: Business Impact of COVID-19 Survey, ONS Regional Accounts, ONS Business Register and Employment Survey
Data is unavailable for financial and insurance activities, real estate activities, and public administration and defence due to insufficient survey responses.

Finally, while the disease affects the workforce through many indirect channels described above, it also directly affects the workforce as people catch it, or display symptoms requiring self-isolation (the severity of the symptoms and nature of work will determine whether people are able to continue working from home in this situation).

The two sectors most affected by this are, unsurprisingly, **wholesale and retail** (9.7% of employees), and **human health and social work** (9.4% of employees)

Evidence of impact so far

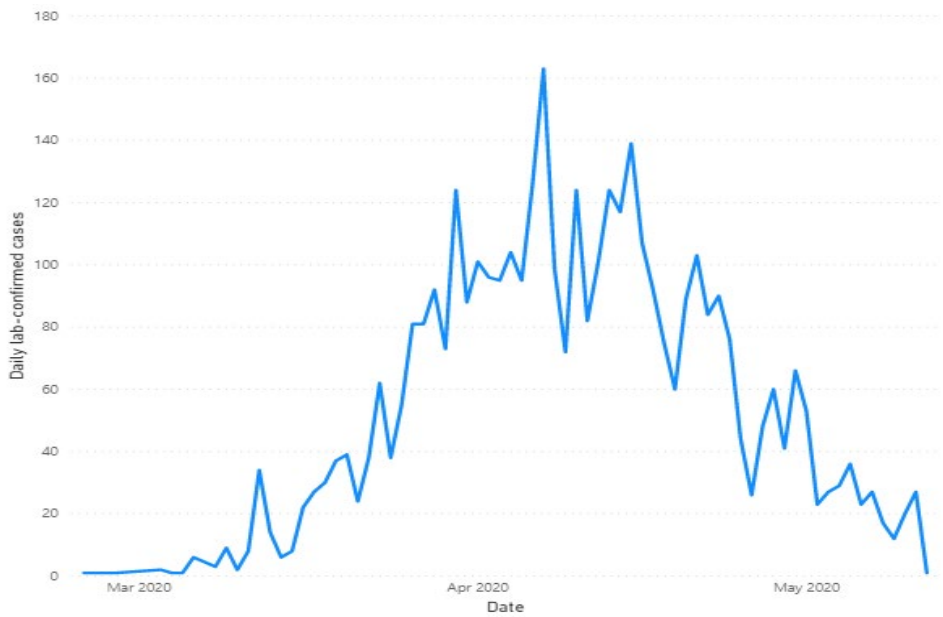
Metro —— Dynamics

The (first) peak of the virus has passed

The highest number of lab confirmed cases in EM3 was on the 7th April, at 163. That has since fallen to close to zero, though it should be noted that this figure is also reflective of the amount of testing being done, and it would not be safe to assume the virus has largely died out in the area. Hospital deaths in local trusts peaked on the same data, with twenty five deaths. These figures do not include deaths in the community or in care homes, which are likely to add significantly to this total.

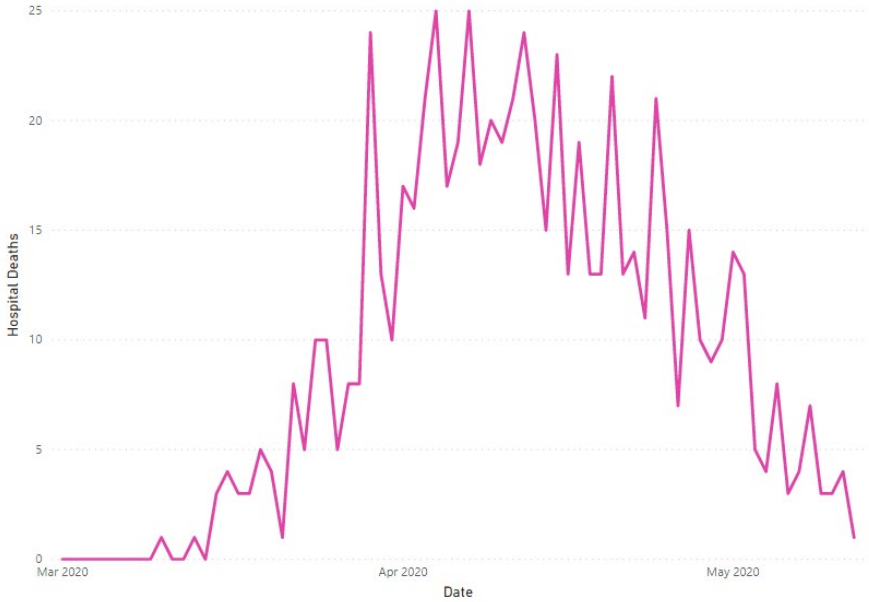
The cause of the reduction in cases and deaths is the adoption of social distancing measures (see next slide). Nonetheless, as the nation eases out of lockdown, it is possible that EM3 will see another peak. The reproduction rate, R, was estimated on the 19th of June to be between 0.7 and 0.9, in line with the UK as a whole. This suggests there is not much room for manoeuvre. Localised lockdowns are likely to be a feature of the next few months, but it remains to be seen if this will happen within EM3.

Daily lab confirmed cases in EM3



Source: https://coronavirus.data.gov.uk/. Data summed for constituent local authorities of EM3. NB data for the last few days is subject to revision.

Daily hospital deaths in local hospital trusts



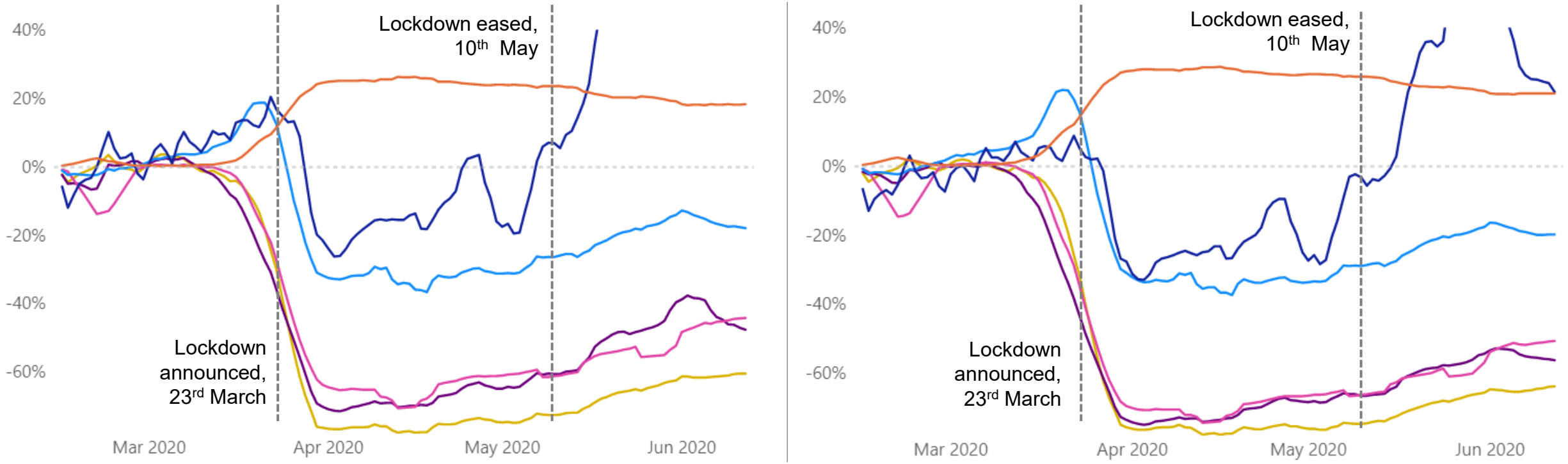
Source: www.england.nhs.uk. Data shown for Hampshire Hospitals NHS Foundation Trust, Ashford and St Peter's Hospital NHS Foundation Trust, Frimley Health NHS Foundation Trust, and Royal Surrey County Hospital NHS Foundation Trust. NB data for the last few days is subject to revision.

Use of space has changed dramatically

Google Community Mobility data examines patterns in movement and usage of space. Similar patterns have been seen in Hampshire, the most dramatic falls have been seen in retail and recreation, where time spent has fallen by around 80%. On weekdays, the amount of time spent in work places and at transit stations has dropped by 70-80%, showing the very dramatic change in working patterns that has taken place. Even in the grocery and pharmacy category, where businesses have been allowed to continue, people are spending around 40% less time (we can see a peak shortly before lockdown, where panic-buying behaviour took hold).

Since the Government eased lockdown on the 10th May, and changed the messaging in England from "Stay at Home" to "Stay Alert", we can see a gradual increases in use of workplaces and retail areas, though these look to have plateaued somewhat. Similarly, public transport usage is up from its post-lockdown low, but still well below the baseline, and growth is faltering. Meanwhile use of parks is signicantly higher than at the start of the year, due to a combination of warm weather and socialising being allowed outside but not inside.

Time spent in different categories of space in Hampshire (left) and Surrey (right), seven-day rolling average, relative to baseline period



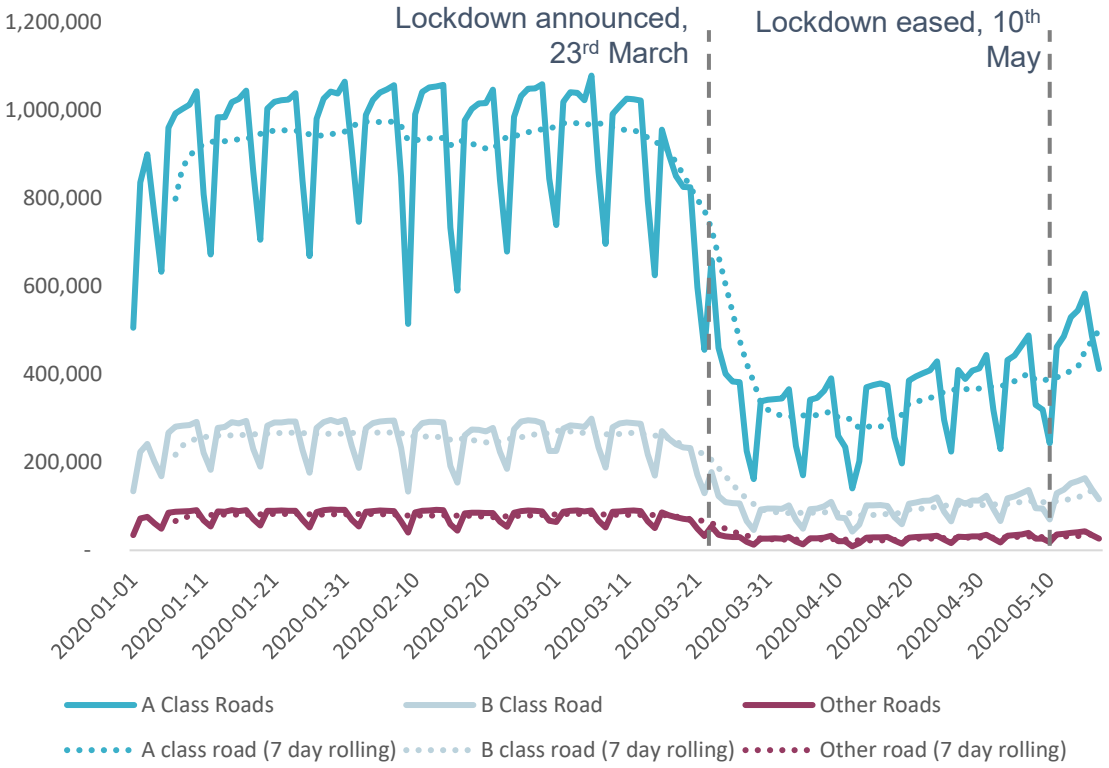
Source: Google Community Mobility Data. Data available up to the 12th June.

A steep fall in road usage

Use of the transport system is often used as a proxy for economic activity. While working from home may weaken this link to an extent, for many sectors the physical transportation of people and goods is essential to the delivery of a product or service.

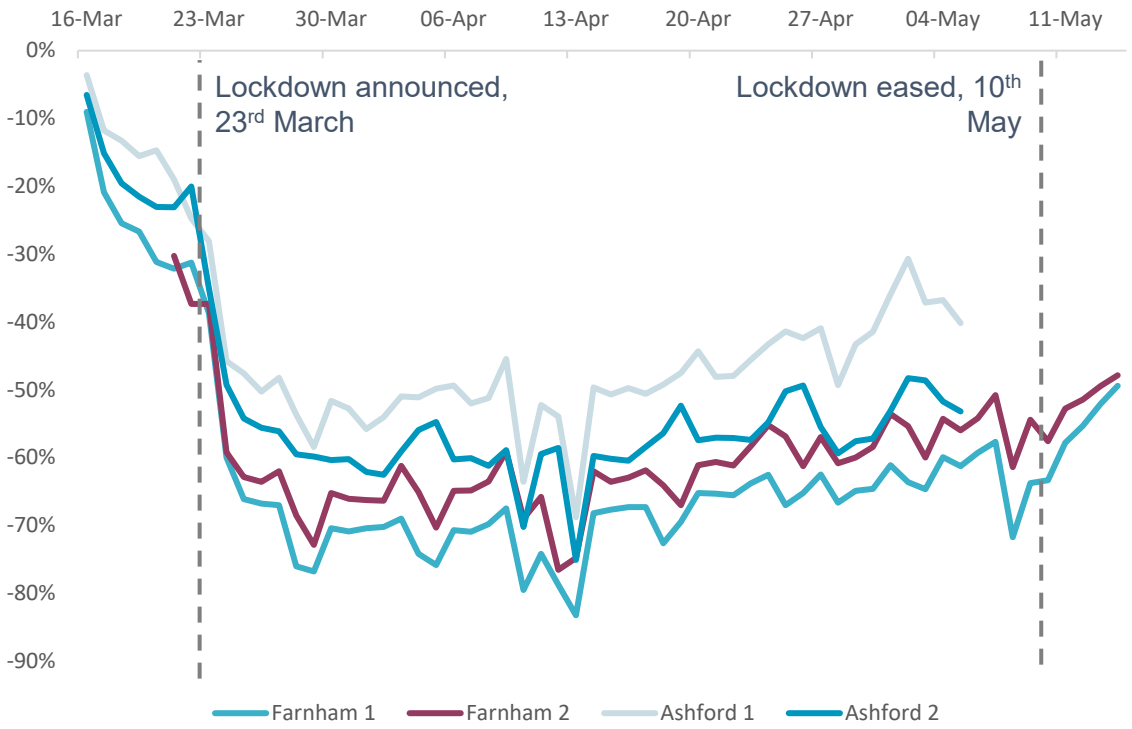
The data from the previous slide about transit stations shows how much the use of public transport has dropped in the area. We can also see that private transport usage has been reduced dramatically following lockdown. Road counts from Hampshire and Surrey both show dramatic falls, starting shortly before lockdown, although recent data suggests usage is gradually creeping back up, especially since the change of messaging on the 10th May.

Traffic counts in Hampshire



Source: Hampshire County Council

Traffic counts in Surrey

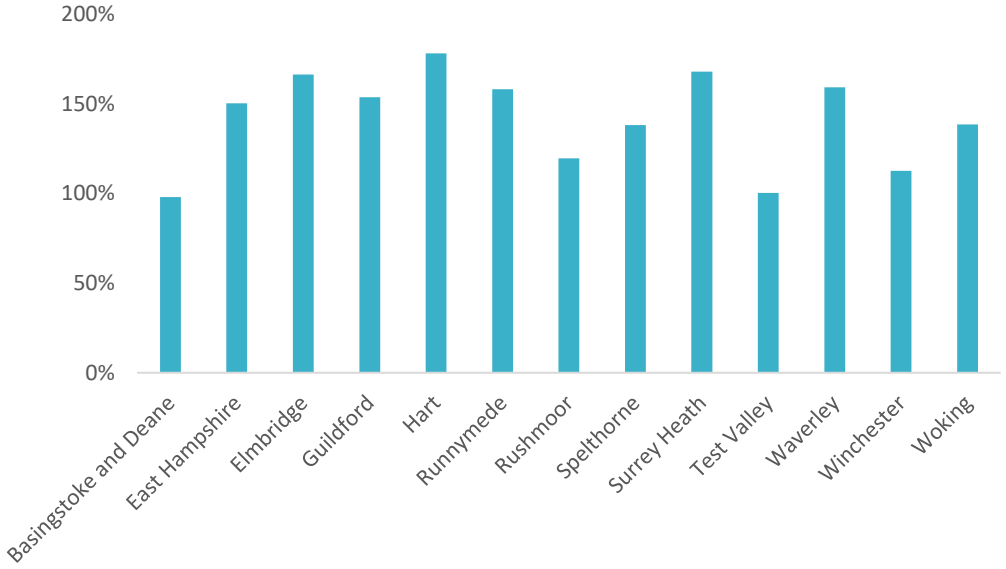


Source: Surrey County Council

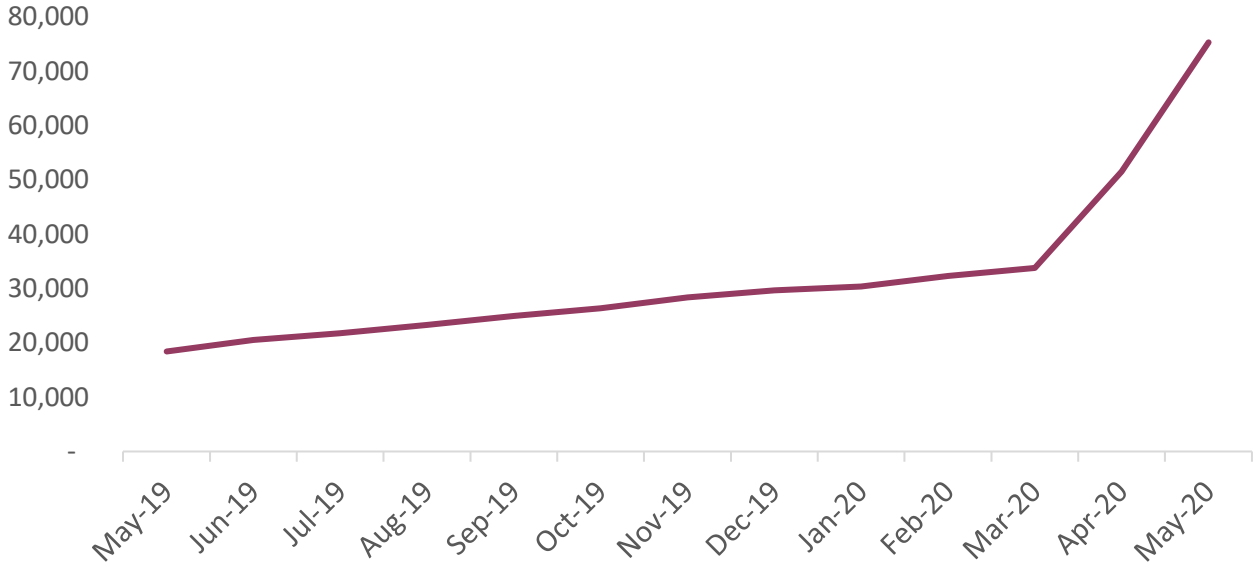
A steep rise in unemployment

Perhaps the most significant indicator of the impact of Coronavirus on the local economy so far is the steep increases in unemployment which have been seen across the country. Provisional figures released by the DWP show that the number of people on Universal Credit in EM3's local authorities rose by 43,000 between February and May. This equates to a 133% increase

Three month percentage change in people on Universal Credit – Feb to May 2020



Total people on Universal Credit, local authorities in EM3



Across the districts, the largest percentage increase was seen in Hart, which saw a 178% rise in people on Universal Credit, though this had the lowest absolute increase. The lowest percentage increase, in Basingstoke and Deane, was still an extremely high 98%, and where the highest absolute increase – 5,132 people – was seen.

In addition to these figures, there are an estimated 170,600 people on the Government's furlough scheme across the local authorities. In a worse case scenario where the labour market can only re-absorb half of these jobs, the number of people on Universal Credit could double again.

Source: DWP Stat X-plore.

Scenarios

Metro —— Dynamics

Introduction to the scenarios

Rarely has there been so much uncertainty as we look to the future. The two major sources of uncertainty are:

- The **progression of the outbreak** is unknown. There are encouraging signs that the UK is flattening the curve. However, the prospect of a “second wave” is being talked about as a significant possibility, as is the idea that the virus may continually recur for a long time before “herd immunity” is developed. A lack of understanding about the duration of immunity compounds this.
- The **central government policy response** is also unknown. We await the publication of an “exit strategy” document, which might give some more clues as to the timing and nature of any easing of restrictions. It is also unclear how long the Government will run schemes providing grants and loans to businesses, and whether there will be a “hard stop” when restrictions are lifted, or a smoothing process. Whether the transition period with the European Union ends at the end of 2020 or is extended also remains to be seen.

These two are, of course, deeply interrelated, further complicating matters.

We therefore have taken a scenarios based approach to look at three possible outcomes. We have not modelled these in extreme detail – this would be neither feasible nor particularly helpful. Instead, we have used them to show what the major risks in different sectors might be, and how EM3 and partners could best respond depending on what turns out to be the reality, by applying our model of response to an economic shock. In all probability we will not end up exactly in any of the scenarios, but somewhere between them.

Overview: research so far

Within the UK, the **Office for Budget Responsibility (OBR)** has published a "coronavirus reference scenario" (14th April) for the economy in 2020, with a primary view to the impact on government spending. The OBR expect the contraction to be sharp, due less to the virus itself and more to the measures taken to tackle it. The impact – a 35% fall in GDP in the second quarter, leading to a 13% drop across the year as a whole – falls out of a sector-based model. They expect the impact to be half in the third quarter and full restrictions eased by the end. They make explicit that "the scenario assumes that it is not necessary to reimpose the restrictions to deal with a new outbreak in the autumn."

The **Resolution Foundation** has produced macroeconomic forecasts with three different scenarios – a three-month, six-month, and twelve-month lockdown. While the emphasis of their findings are largely focused on public sector borrowing required, they note consequences for unemployment – with the total peaking at 2 million under the three-month scenario, and up to over 7 million (20.8%) in the 12-month scenario. This latter case would have severe impacts for all places in the United Kingdom.

The **International Monetary Fund (IMF)** has published four possible scenarios for world growth. Their main projection shows growth in the UK falling by 6.5% across 2020 (lower than falls projected in France, Germany, Spain, and Italy) with growth returning strongly in 2021 at 4.0%. The alternative scenarios are a) the outbreak lasts longer than anticipated in 2020, b) there is a new outbreak in 2021, or c) both of the above. In the last case, instead of 5.8% growth, and 8% reduction occurs. The huge breadth of outcomes being forecast by the IMF shows how difficult it is to make predictions in this time, regardless of expertise.

The **Bank of England (BoE)** Monetary Policy Committee has published their outlook, with one illustrative scenario. This involves a fairly sharp rebound in economic activity in the second half of the year, although GDP doesn't reach the pre-Covid level until the second half of 2021. Unemployment in 2020 rises sharply, but falls back more gradually as consumer uncertainty weighs on demand. They factor in a small productivity loss associated with less innovation and reduced investment. The Bank notes there are many key sensitivities, including the global outlook, response of consumers once measures are lifted, and the possibility of greater longer-term "scarring", acknowledging that "the balance of risks to the economic outlook lies to the downside".

None of the forecasters view inflation to be a particularly pressing concern, with any increases (stemming from additional government stimulus) being mitigated for by falls in demand. Nonetheless, impacts on trade are unpredictable, and we may find sharp spikes in the price of some goods.

The three scenarios (1)

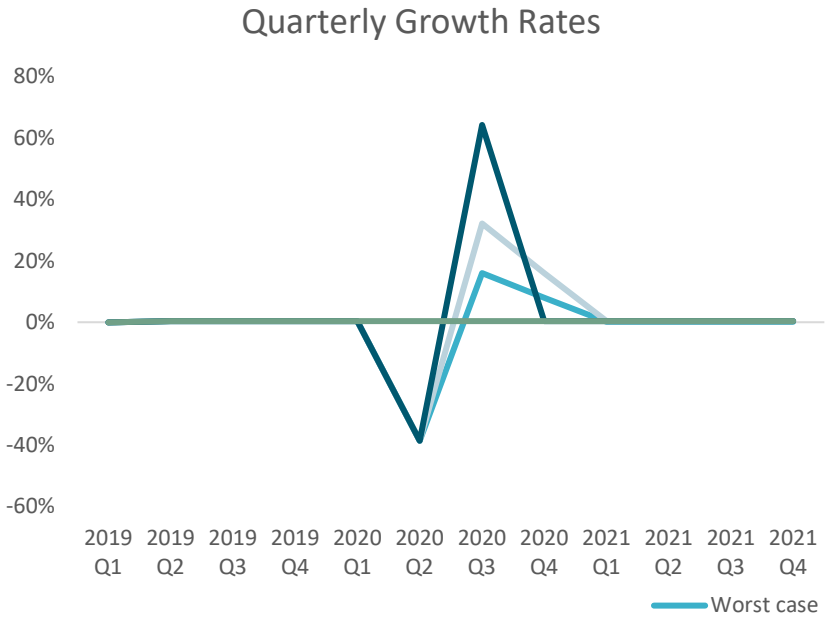
To develop our analysis we have created three scenarios within which we expect the reality to broadly fall:

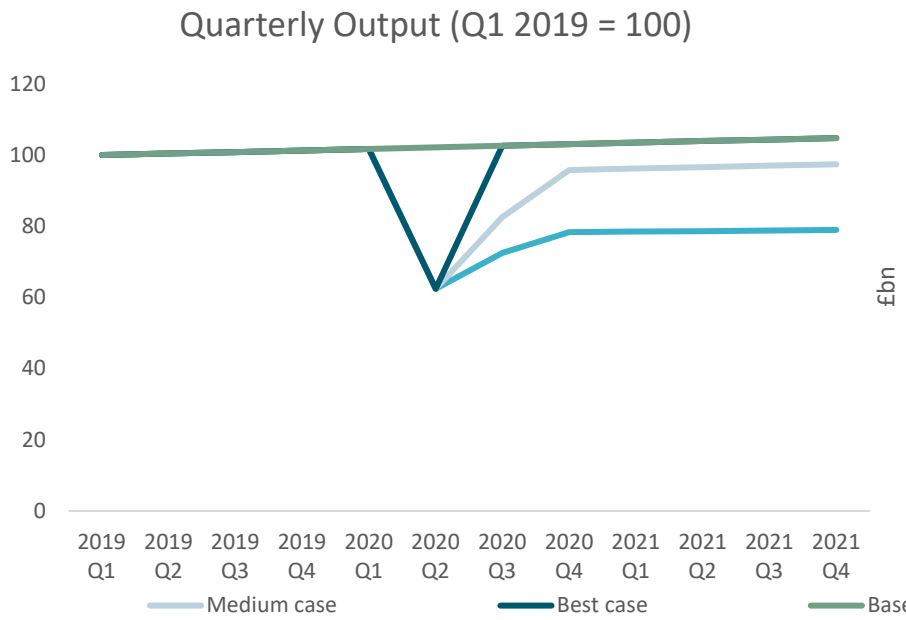
- **Best case: A quick return to economic growth (a "V-shaped" recession).** In this case, while a sharp drop is experienced in Q2 of 2020, a close to full easing of restrictions has been enacted by the end of this quarter (with social distancing practices introduced to help everyday activities carry on, such as limitations on numbers in all shops, etc). Q3 sees a quick bounce back in output, and though some output has been permanently lost (particular in the hospitality and cultural sectors), by the end of the year long-term growth is restored. There is no long-term "scarring" of economic productivity. (This case is similar to the OBR's scenario, and fairly similar to the BoE's scenario).
- **Middle case: A slow return to economic growth (a "U-shaped" recession).** In this case, it does not prove as straightforward to ease restrictions as was hoped, due to recurring spikes in number of cases, as it becomes clear a vaccine will be needed before life can return to normal. An on-off policy approach is adopted throughout 2020, allowing some economic activity to return, but in a slower more cautious manner – any bounce back in Q3 is muted and a return to long-run growth rates is not seen until early 2021. This causes a greater increase in unemployment, though the overall effect on productivity once growth returns in 2021 is minimal. (This case is similar to the IMF's "Longer outbreak in 2020" scenario)
- **Worst case: A lingering cloud over economic growth (an "L-shaped" recession).** In this case, any hopes that Covid-19 might be a "blip" in the economic growth path are abandoned. Delays in being able to find a vaccine lead to a further significant global outbreak in 2021. Many sectors of the economy are largely unable to restart as lockdown restrictions persist. By the end of 2021, a vaccine is beginning to become available, leading to a gradual return of market and business confidence. However, as the duration of the outbreak becomes clear, many firms which were on the furlough scheme decide to cease trading. This causes a loss in worker-firm attachment capital and damages long-run productivity. (This case is similar to the IMF's "Longer outbreak in 2020 plus new outbreak in 2021" scenario)

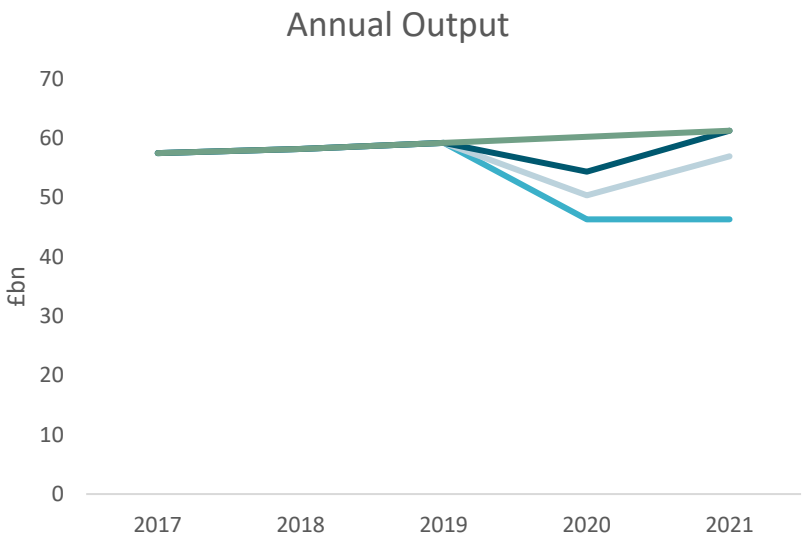
The three scenarios (2)

We have modelled a possible path for each scenario. In every case we have factored in a drop of 38.6% in the second quarter, in accordance with an application of OBR sector forecasts to Liverpool's GVA mix. In the best-case scenario, we have modelled a rapid recovery, with businesses "picking up where they left off" in Q3 of the year so that the trend growth path is returned to. In the medium case, we have modelled a "bounce" in the third quarter which is half as sharp, although with some more output returning in the third quarter. Because this scenario assumes no long run scarring of the economy, the growth path into 2021 is still of the same gradient, but some output has been permanently lost. In the worst-case scenario, the return of output is more muted still. We have also assumed long run damage to the productive capacity of the economy, with the long run growth path half as steep. When we annualise the quarterly figures, we can see the classic L-shape, where economic output is lost into the long-run.

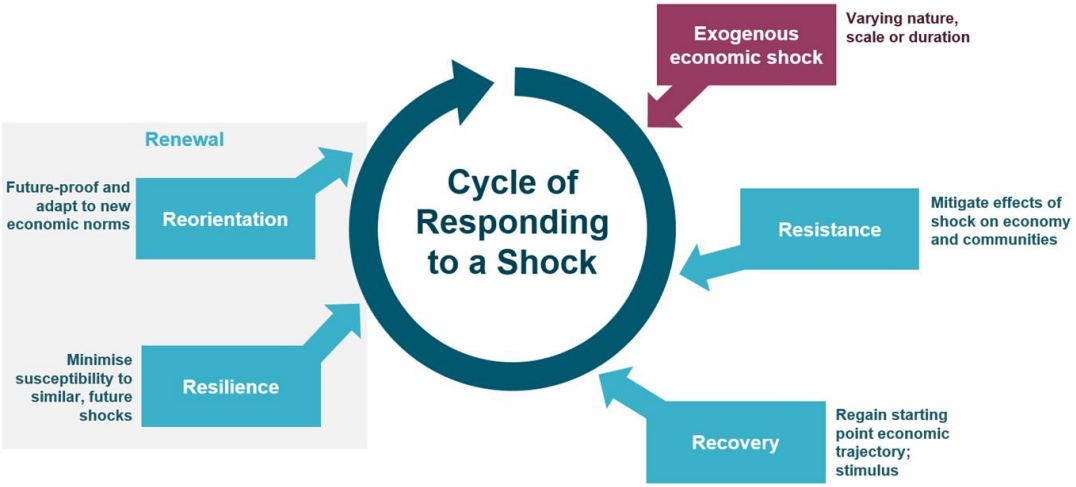
These scenarios are indicative and are not intended to be seen as forecasts in any sense. We now apply these possible paths to different sectors, to understand the challenges and responses that may be needed (this will be subject to further discussion with businesses to refine)







The three scenarios (3)



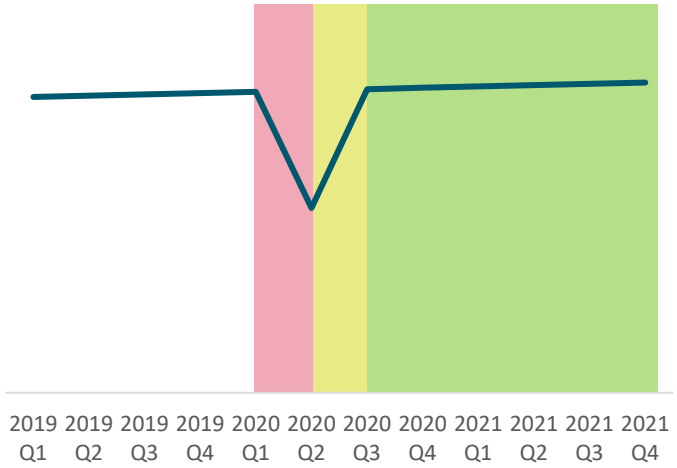
Finally, we apply our model of the cycle of responding to an economic shock, which has four stages: Resistance, Recovery, Resilience, and Reorientation (the last two of which are grouped under renewal).

Depending on the type of shock experienced, the timing of the different phases will vary. In the Best Case, Resistance only applies during the second quarter of 2020, as business are kept on financial life support for a month or two before being relaunched. Recovery is in the third quarter while the economic growth trajectory is caught up with, and then by the end of the year we are already into the renewal phase. In the Medium Case the resistance phase takes longer, and in the Worst Case, longer still. There is a corresponding lack in the recovery phase, which drags on much longer into 2021 in the Worst Case scenario, with the approach turning to renewal only in 2022.

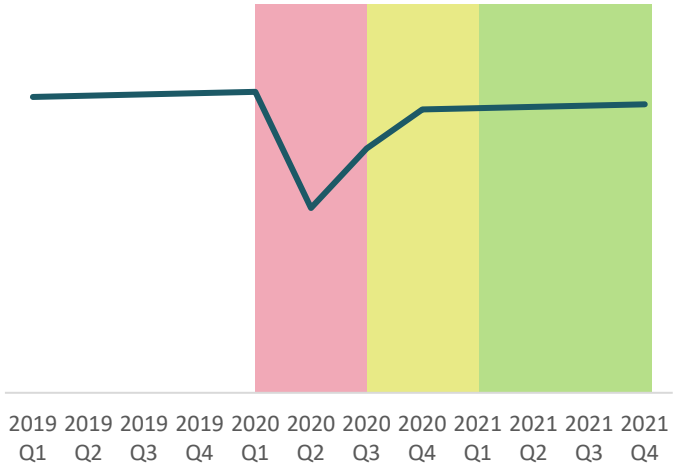
We now apply these scenarios to different sectors.

Key: Resistance | Recovery | Renewal

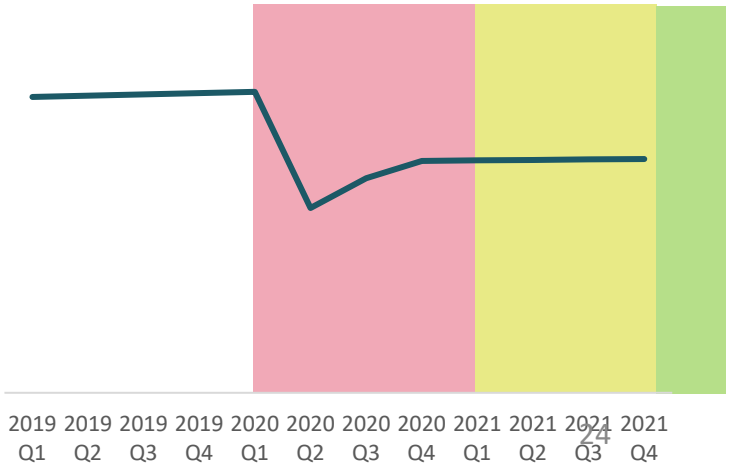
Best Case



Medium Case



Worst Case



Which scenario?

Which of these scenarios is most likely? Our considered view is:

1) The best-case scenario (V-shaped) is very unlikely.

The V-shaped scenario is both attractive and simple – if it is government restrictions which have created the drop in economic activity, then theoretically, once those have gone, life can return to normal. However, in practice things look much more challenging. Firstly, as discussed above, the impact on consumer confidence of the crisis suggests people are very pessimistic and unlikely to quickly return to spending patterns. By extending the furlough scheme to October, the Government is tacitly acknowledging that the demand for many goods and services will take at least into the third if not fourth quarter to return. Many businesses, such as restaurants, will be unable to reopen at full capacity for a long time. Delays in orders, particularly for complex products, will cause longer term supply chain impacts. Some sector leads, such as in aviation, have been explicit in saying they foresee a recovery to be measured in years, not months. In addition, the idea that restrictions will all be gone by the end of the year looks very unlikely – even the cautious plan set out by the Government is conditional – with data in some parts of the country suggesting it would not take much for infections to begin increasing rapidly again.

2) The middle case scenario (U-shaped) is possible, and at this stage would represent a good outcome

The U-shaped recovery is within the bounds of possibility. If most businesses are able to reopen in some form this year, and the security of the furlough scheme gives consumers confidence to continue spending, we could see the economy gradually getting back on track. If an effective plan gets most workers back from furlough and into the workplace, then limited scarring to productivity should result. In our U-shaped model, output in 2021 is roughly the same as it was in 2017 – this would not be a bad result under the circumstances.

3) The worst case scenario (L-shaped) should be taken seriously and planned for as a possible outcome

There are numerous factors which could take the Coronavirus recession from short-term disruption to long-term damage. Samuel Tombs, Chief UK Economist at Pantheon Macroeconomics, has spoken of the possibility of a “negative feedback loop” as unemployment leads to less spending, which in turn causes more unemployment. Should the Government decide that its furlough scheme is only delaying the inevitable, and draw it to a close prompting mass unemployment, this vicious cycle could take off very rapidly. For cities in particular, this is compounded by the fact that office workers, who have higher disposable income and tend to be based in city centres, are likely to be the last back to work, and there may be a permanent reduction in city centre office worker population if working from home patterns become embedded. In addition, the end of the transition period with the European Union in December, if not managed well, could do a large amount of damage to exporting businesses. Finally, there is the possibility of another sharp spike in infections, with the WHO warning that this virus is unlikely to ever go away, so further spikes are probably inevitable.

The above means it is best to take a “hope for the best, plan for the worst” approach – where the “best” is the reasonable middle case scenario – makes the most sense. We believe the reality is likely to fall somewhere between 2) and 3).

We now look at how a response will be shaped depending on the scenario, across each of the four themes.

Sector profiles under different scenarios

Metro —— Dynamics

Aerospace

Overview and Events

Aviation, and related sectors have been among the most immediately impacted in the crisis. Global air traffic has been hit substantially by the COVID-19 outbreak. In the last week of April, the number of commercial flights was approx. 65% below the number in the last week of February. On 1st May it emerged that Rolls Royce are preparing to cut up to 8,000 jobs after Airbus and Boeing reduced production to cope with the large fall in demand. Ryanair are planning to cut 3,000 jobs and British Airways are preparing to cut 12,000, a significant reduction across the aerospace workforce.

While air traffic has consistently shown a solid recovery from previous crises, there is uncertainty over what the recovery future of the industry will look like. There are questions over what it will mean for the aircraft manufacturing industry and supply chains. Roland Berger analysis suggests the magnitude of the air traffic crisis, in terms of civic aerospace, can be characterised by four key indicators:

Duration of air travel restrictions

The longer the restrictions last, the more airlines will run out of liquidity, resulting in bankruptcies, nationalisations or consolidation, which could completely change the landscape of the industry. In addition, the longer the restrictions last, the greater the possibility that temporary behavioural changes become permanent (e.g. reduction in business travel).

Time to recovery

There is the potential for a ‘second spike’ and further outbreaks of the virus, which could lead to waves of travel restrictions and fluctuating levels of air travel over an extended period (1-2 years+).

What the “new normal” looks like

The combination of a long duration of travel restrictions and repeated outbreaks over an extended period of time might lead to a "new normal", with global air traffic volumes settling at a lower level.

Future growth path

Structural changes to the industry may lead to lower post-crisis long run growth rates compared to the long-term trends observed over the past decade. There are different scenarios based on the kind of long run economic impact of COVID-19 that result in a different future growth path for the aerospace industry.

Aerospace

Military Aerospace

The demand situation is better in the defence side of the industry, with demand more protected by budgeted government spending. This improves the situation both in the immediate and long term. Supply chains are also less exposed although there is still some risk of short term disruption.

Trends and Inflection Points

Many suppliers operate within both the defence and civil spaces and defence being reasonably strong is helping the UK supply chain in survival phase. Most suppliers are expecting to see 40% reduction in supply in next 2-6 months (source: Farnborough Aerospace Consortium consultation). Meanwhile larger tier firms are burning stock, which will impact supply chains down the line.

Verdict has conducted a poll to assess how disruptive the pandemic will be on the aerospace supply chains. Analysis of the results shows that the pandemic is expected to cause high disruption to the aerospace supply chains. **79%** of poll respondents voted that the pandemic will be very disruptive on the aerospace supply chains. A moderate impact is foreseen by **17%**, who anticipate COVID-19 to be somewhat disruptive. Just **4%** believe that the pandemic will be minimally disruptive.

This crisis also comes at a time when some within the industry were noting a “Greta effect” with some consumers and businesses opting to fly less for environmental reasons. It is possible that this trend will be accelerated, as taking the environmentally friendly option of holidaying at home becomes fashionable again. Adapting here, and aiming to use **clean fuels**, will be important for the longer term future of the sector, as economies attempt to deliver greener and more sustainable growth.

Policy Outlook

IAG CEO Willie Walsh appeared before the Transport Select Committee on 11th May and criticised the mandatory quarantine on passengers arriving in the UK being introduced by the government. Meanwhile Ryanair CEO Michael O’Leary has criticised social distancing measures that have been suggested for flights such as leaving the middle seats empty in commercial aircraft. In both cases the CEOs believe this measures will have significant impact on the revenues of the aviation industry and its long term ability to recover.

Again military aerospace is more protected as demand is not under the same commercial pressures and is likely to be robust in the long run. EM3-based Qinetiq have not seen a major impact on their programmes yet, but they see themselves in a slightly different area of the market than a normal defence/security company, as they have a number of large Ministry of Defence contracts. However they are clear that defence will be very important to the Government moving forwards.

Cash is going to be a key issue for aerospace companies. Lots of companies are going to run out of cash, as costs hit at the raw materials stage and payments are not received until 60 days after delivery in some cases.

Aerospace

Scenario	Shape	Major risks	Implications in time period			
			Q2 2020	Q3 & Q4 2020	2021	2022 and beyond
Best Case		Air travel restrictions lasting around 2 months. Short term cancellation spike. Supply chain issues leading to delayed production of new civil aircraft.	Resistance	Recovery	Renewal	
			Minimise cancellations or postponement of aircraft orders.	A “new normal” would be reached for Winter 2020. Maintain production while safeguarding liquidity.	Travel volume will reach 100% of pre-crisis levels. Cumulative demand for aircraft over the next 10 years would drop by 4% due to the postponement of aircraft replacements.	
Medium Case		Air travel restrictions lasting around 4-6 months. Longer term reduction in production and operations. Restrictions effecting mix of products (i.e. more smaller aircraft being produced).	Resistance		Recovery	Renewal
			Adjust production cycles to reflect replacement delays of around 18 months whilst keeping the supply chain moving. Firms need to reach a consensus on what the “new normal” may look like.		A “new normal” would be reached for Summer 2021.	Travel volume will reach 90% of pre-crisis levels. 10 year cumulative demand for aircraft would drop by 27%.
Worst Case		Air travel restrictions lasting around 6-12 months or beyond. Longer term behavioural changes from businesses and consumers (i.e. flying less) changing the shape of the civil aircraft industry.	Resistance			Recovery
			More significant changes to product mix and production cycles than described in Medium Case. Airlines must produce already ordered aircraft where demand remains as demand for aircraft could tumble. Firms need to reach a consensus on what the “new normal” may look like, whilst protecting their own cash positions. Companies to review their strategies and determine how they will fit with the new normal.			A “new normal” would be reached for Summer 2022. Travel volume will reach 80% of pre-crisis levels.

Digital

The Digital sector points in many different directions, including IT services, electronics, online retail and gaming. The outlook in each of these directions is varied and often mixed, with each facing a different short and long term set of challenges and opportunities.

Overview and Events

- The outlook in the Digital sector is mixed, with some sections of the industry presenting a more positive view than others. Consumers have shifted their spend to online retailers during the pandemic and a study from Kantar suggests some consumers may make the change permanently, with six in ten consumers planning to buy as much online as they do now once the pandemic has passed.
- BT's network traffic was up by around 100% during 'office hours' in lockdown, which is well within the network's capacity.
- Not all of the digital sector will be positively affected, with Global Data forecasting that IT Services will be the most negatively hit part of the sector. A combination of difficulties delivering existing projects whilst customers are in lockdown and a slowdown in demand as businesses cut their 2020 project expenditure will be a challenge for the industry. In mid-April ISG forecast that discretionary IT spend in businesses is being reduced by up to 25%, with major technology investments are being delayed by between 90 and 120 days at many businesses.
- Customer electronics may also struggle in the longer term, as discretionary income falls consumer spending on luxury gadgets and technology is likely to fall.
- Apple, Samsung and numerous other digital firms have experienced significant supply chain disruption. Significant supply chain diversification is expected in the medium-term, with a need to become less reliant on China. The global nature of the industry has meant that supply chain disruption has been protracted, with shutdowns at different times at different countries each causing disruption.

Gaming

- Gaming has proved resilient to the pandemic, with usage increasing substantially. Whilst sales of hard copies of games have fallen, digital game providers have seen a boost with overall video game sales at their highest level in a decade. That being said, the industry has had to adapt and there have been obstacles to overcome.
- Nintendo reported "unavoidable" disruption to its manufacturing operations in China in February and supply chain disruption has since become a major obstacle. Again in a global industry, different parts of the industry have been affected at different times by the pandemic as the virus has spread.

Digital

Gaming (ctd.)

- Development of new consoles has been particularly hit, with firms also unsure of the impact on consumer demand for expensive consoles as discretionary income falls following the pandemic. Game development has been more resilient with firms able to shift to remote working rapidly. Riot Games in Los Angeles reported that 92% of their employees were working from home the day before the “Safer at Home” order was issued.
- The direct access to gamers offered by some digital advertisers (Anzu have worked with their clients to re-think their advertising proposition) also means there is some form of continued revenue stream for online game producers meaning production can be sustained.

Trends and Inflection Points

- COVID-19 has “accelerated the shift to digitisation” with firms making progress that was planned to take place over several years in a much shorter space of time, as employees work from home and customer habits shift. Platforms such as Zoom have benefitted from increased usage, but there are long term behavioural changes set to take place too. For instance, there is set to be demand for faster broadband and increased bandwidth as more consumers work from home. Virgin have given over a million customers a free broadband speed boost with some other providers offering similar benefits. Consumers may find it difficult to go back down to reduced speeds and demand for faster broadband may rise.
- Enterprise IT have seen a rapid demand spike for networking and capacity services, collaboration software and cybersecurity. However many IT projects are on hold and in the medium and long term a fall in demand driven by reduced budgets may hit IT infrastructure firms and vendors.
- Video game usage during the pandemic has risen by up to 75% during peak hours. Game advertising platform Anzu say that “as consumers need to find new ways to connect with others while deciding what to spend their money on in this uncertain economic time, games offer the highest overall value (hours/social connection/quality).”
- Moving forwards, there is a need for a **skills** programme as well as an infrastructure programme, in order to stimulate employment and progression within the sector, particularly as employees who have been made redundant may look to enter the Digital sector. BT has its own programme called ‘Skills for Tomorrow’.
- Businesses that fail are likely to be those who struggle to transition online; “you can equate the digital maturity of businesses to their resilience.”

Digital

Scenario	Shape	Major risks	Implications in time period			
			Q2 2020	Q3 & Q4 2020	2021	2022 and beyond
Best Case		Supply chain issues causing delays in product delivery. Digitisation projects put on hold and in some cases cancelled. Reduced demand for new products.	Resistance	Recovery	Renewal	
			The digital industry is well equipped for remote working, enabling some projects to continue.	Supply chains will need to diversify, particularly to reduce the reliance on China.	Projects on hold should begin to restart and demand for new projects will slowly resurface, enabling a bounce back.	
Medium Case		Reduction in demand for new products for firms and in electronic goods from consumers. Increasing number of failed start-ups.	Resistance		Recovery	Renewal
			The IT industry may need to reinvent its go-to market strategy. The impetus behind digitisation may be reduced. Industry will need to focus on those solutions and products that enable firms to adapt to the changed working world.		Increased home working due to the slower recovery leads to opportunities for firms, e.g. broadband providers.	Uplift in cloud demand and automation driven by increased home working. Supply chain diversification.
Worst Case		Major economic slump causes large reduction in demand from both firms and individuals for IT services and digital products. Long term supply chain issues.	Resistance			Recovery
			Industry will need to re-focus and again diversify supply chains. Industry will need to adapt to the changed market and the new needs of existing customers. Opportunities for firms specialising in products and services that enable individuals to work from home, e.g. broadband, electronic devices.			IT can play a role in the wider recovery by supporting firms to support their staff, in turn helping the industry recovery.

Retail

Again, the Retail sector points in many different directions, including food, clothing and electronics, and spans both physical and online stores. The impacts within these directions are varied and there are a mix of short and long run challenges and opportunities.

Overview and Events

- Retailers reliant on physical stores (non-food) have had to shut those stores so in some cases have had to suspend operations almost completely due to the pandemic. Online retailers have managed to hold up better but the sector has been hit as consumers have cut back their spending on non-essential items. Behavioural shifts have happened rapidly, with consumers moving away from experience and indulgence to convenience, safety and necessities.
- Different sub-sectors will experience different short and long term impacts. Amongst non-essentials, which have seen a sharp decline, those set to see the quickest bounce back are clothing and home electronics.
- The food market has seen a rise in sales. UK grocery sales rose over 20% to a record £10.8bn in the four weeks to 22 March, whilst Tesco said “significant panic buying" had cleared its supply chain of certain items and caused sales to jump by around 30%, although the situation has since stabilised. Consumers are shopping less frequently but buying more per shopping trip.
- However Tesco have estimated the impact on their revenue will be between £650m and £925m, due to sharp cost increases in payroll, distribution and store expenses. They recruited 45,000 additional workers to cope with the rise in demand and to mitigate absence among ill or self-isolating staff members. Increased staff costs and a limit on how many customers are allowed in stores due to social distancing have hit revenues for Tesco and other food retailers.
- Retailers reliant on footfall in physical stores are struggling. Debenhams have confirmed seven stores will not re-open following the pandemic, following the announced closure of up to 50 stores in January. None of the seven closures are in the EM3 area. None of the closures announced in January are either but Debenhams have only confirmed the identity of 19 of the 50 stores closing.

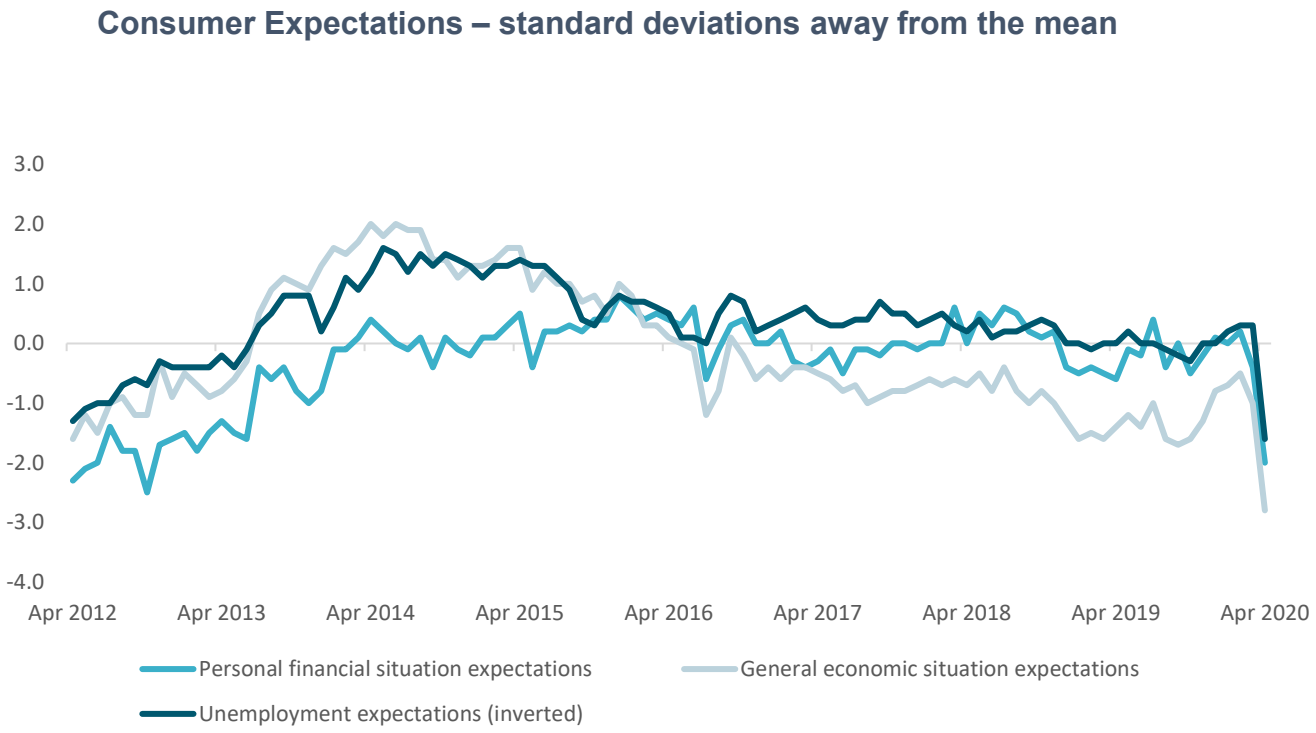
Retail

Trends and Inflection Points (ctd)

- London Business School estimates suggest household spending on retail (excluding food) fell by 30% in April (compared to April 2019). Whilst the falls in Q3 and Q4 2020 may not be so steep when shops re-open, it seems likely that they will remain some way down on 2019.
- Footfall was down 85% at Festival Place in Basingstoke during April and May.
- Retailers will need to adapt to changing demand: footfall is down, but basket sizes are much higher, reflecting larger, less frequent, food shopping.
- In apparel, childrenswear, leisurewear and nightwear are in demand as they are necessities for the current lifestyle.
- Retailers such as Next (an anchor store in Festival Place shopping centre in Basingstoke), have already announce there will be significant sales when stores re-open in a bid to generate custom and re-start physical high street shopping.

Retail

- National data, from the Bank of England, shows that people's expectations about the economy as a whole, their own personal finances, and the likelihood of the becoming unemployed, have all soured markedly.
- Consumer expectations around the economy and their own personal finances are now two standard deviations below the mean, going far lower than they went at any stage during the Brexit uncertainty.
- This means people will be putting off non-essential purchases, while they wait to see what happens. If this situation persists, then even if restrictions on retail and hospitality are significantly eased, we may see a much more gradual return to previous spending patterns.
- Retail publication Drapers have forecast that mid-market fashion brands will be the worst hit, whilst luxury retailers with "substantial headroom" will emerge much more successfully.



Source: Bank of England

Retail

Policy Outlook

- In the short term large shopping centres are being urged to re-consider the anchor store status in their locations, with greater emphasis set to fall onto food retailers. John Lewis have already said that it is unlikely all of their stores will re-open and other department stores may follow suit. They have not yet specified which stores will close.
- EM3 is home to the 21st largest shopping centre in the country in terms of size, Festival Place in Basingstoke, alongside smaller centres including The Malls in Basingstoke and The Friary Centre in Guildford.
- Most shopping centres are currently anchored by a department store, Festival Place is anchored by Debenhams and Next, and most contain stores owned by Arcadia, including Topshop. Arcadia have confirmed there will be store closures but re yet to confirm where, whilst Next have announced major clearance sales when they re-open, in order to boost revenue and sell stock that will be out of season.
- Basingstoke Council are working with external groups (university, advisors) to provide intelligence and support around the re-opening and adaptation of the retail industry, including an e-commerce platform to help local businesses to move online and trade. They also believe the focus on signage in shopping centres and on the high street should be around positive messaging, such as “play your part, keep apart”.

What Next?

- The long term recovery of the high street is likely to depend on the income and wealth of an area. Wealthier areas are likely to see a faster recovery, as pent-up demand fuelled by additional saving during lockdown is released, whilst areas with lower incomes (which are now being squeezed further)r or where the high street was already struggling, are going to find it difficult to recover. The recovery will therefore be a mixed picture across the country as the pandemic increases regional inequality.
- Some behavioural changes will become permanent. Six in ten consumers say they plan to continue buying as much online after the pandemic as they do now. Meanwhile click and collect is forecast to show a more permanent decline as more consumers switch to home delivery
- Marks & Spencer have a ‘never the same again’ programme, acknowledging that shopping and consumer habits may be changed on a longer term basis and are focusing on how their business can adapt. This will involve permanent changes to ways of working and significant cost-cutting measures, with other retailers likely to adopt similar measures. A key change is that from September M&S will launch an online food delivery service for the first time through a partnership with Ocado, another example of changes driven by the shift to online spending that the pandemic has accelerated.

Retail

Scenario	Shape	Major risks	Implications in time period			
			Q2 2020	Q3 & Q4 2020	2021	2022 and beyond
Best Case		Sharp decline in sales of non-essential and luxury goods. Revenues do not fully make up for rising costs of staffing, recruitment etc. High streets struggle to re-open in lower income areas.	Resistance	Recovery	Renewal	
			Recruiting to cover the rise in demand for food. Adapting to increased online demand and increasing capacity.	Re-focusing on the items where demand is highest (food, essential clothing, some electronics).	The high street would recover in most areas but struggle in those with lower incomes and wealth levels. Demand for online retail is likely to have increased on pre-pandemic levels so it will be important for retailers to strike the right balance between online and physical offerings.	
Medium Case		Lower incomes results in a longer term decline in revenue. Shops struggle to re-open under social distancing and the shape of the high street could change.	Resistance		Recovery	Renewal
			Increasing capacity to cope with rising online demand. Adapting policies such as returns and strengthening delivery services to enhance the customer offering.		Consumer behaviour is forecasted to change, so retailers will need to adapt to changing demand and needs.	The high street may look different but in some areas will be revived, possibly with a shifted focus.
Worst Case		Shops struggle to re-open under social distancing and footfall dives at shopping centres. Rising inequality means the high street is almost wiped out in parts of the country.	Resistance			Recovery
			Adapting to a more extended economic downturn by focusing on essential and necessary items where demand will be more robust. Footfall will be low and shops will have lower capacity due to social distancing, so moving online and/or increasing online capacity will be vital.			Stores being able to re-open and adapt to trading under social distancing.

Leisure and Tourism

Overview and Events

- Tourism and the Visitor Economy is a major sector in EM3, with approximately 1 in 12 workers employed in this sector in 2018. This was a growth of almost 30% since 2009. A large chunk of the businesses fit into the small business category of 10-49 employees – 26.1% of businesses compared to 11% across all sectors (*Source: Hampshire County Council)*
- The initial impact across the sector has been devastating, with tourist attractions, leisure facilities, hotels, cinemas etc all forced to close. There have been major declines across the industry with many firms forced to cease trading.
- On 25th March the Government published a letter regarding the exemption for hotels, hostels and B&Bs to open, to offer accommodation to key workers and support rough sleepers to keep them off the streets and in suitable accommodation. The Government has now confirmed that hospitality businesses must remain closed until at least 4th July.
- Businesses in the leisure and hospitality sector can also make use of two other schemes which are not available to other businesses. Grant funding of £25,000 is available for retail, hospitality and leisure businesses which have property with a rateable value of between £15,000 and £51,000. Meanwhile businesses are also eligible for a 12 month business rates holiday.
- Restaurants, cafes, bars and pubs are likely to be hit especially hard as social distancing measures could make sustainable re-opening difficult even once restrictions are lifted, if they can only re-open at limited capacity. In March, Restaurant Group announced that the majority of its 'Chiquito' and 'Food & Fuel' restaurants and pubs will not reopen once the lockdown ends.
- On 18th May the Casual Dining Group, owners of restaurant chains including Bella Italia and Café Rouge, announced it is looking to bring in administrators. The group owns over 300 restaurants in the UK, so 6,000 jobs are at risk. Whilst it is expected that some of the restaurants will be saved, it is unlikely that all will be. Whilst some of the group's restaurants in the Enterprise M3 area were closed several years ago, some, such as the Café Rogue in Woking, remain at risk.

Trends and Inflection Points

- With overseas travel likely to see a substantial decline for at least a year, there is the potential for domestic hotels and tourist attractions to benefit. Travel app Bimble has seen a 25% increase in traffic towards UK based content.
- Attractions, cafes and restaurants within the Enterprise M3 area could benefit from an increase in demand, especially in tourist hotspots. However, some tourist boards and national parks have sort to dissuade people from visiting, even now that restrictions in England have been lifted.

Leisure and Tourism

Trends and Inflection Points (ctd)

- Meanwhile the UK's £8 billion per year gym industry is likely to take a hit. A combination of health concerns, as consumers are more reluctant to use shared spaces, equipment and facilities, alongside lower incomes is set to negatively impact the industry. Consumers have been unable to visit gyms during lockdown and have instead had to exercise outdoors or at home.
- Some of this behavioural change may continue as consumers realise they do not need to pay for a gym membership, whilst others may have purchased their own equipment to use at home during lockdown. The director of the Leisure Database Company expects one in five people to drop their gym memberships, citing a "Joe Wicks" effect as consumers exercise at home, particularly hurting gyms that are reliant on classes.

Policy Outlook

- There has been a growing trend towards experience-led high streets and shopping centres as opposed to retail. This has been paused by the pandemic but as measures are lifted and the world adjusts, experience and entertainment led industry could resume the trend and therefore be better placed than retail (non-food) for long term recovery.
- In the short to medium term however, these organisations could struggle. Restaurant closures have already been announced and there is no re-opening date in sight yet for pubs. When these businesses can re-open it is unlikely to be at full capacity, meaning revenues are hit over an extended period and for some it may not be sustainable to re-open. Whilst demand is likely to return in the long term, the damage done in the short to medium term may have a significant impact on the number of businesses within the leisure and hospitality market.
- An enforced focus on UK based destinations, due to the inability to travel abroad, could at least mitigate some of the worst of the damage to the UK leisure and tourism sector across the board.

Leisure and Tourism

Scenario	Shape	Major risks	Implications in time period			
			Q2 2020	Q3 & Q4 2020	2021	2022 and beyond
Best Case		Reduction in the size and number of airlines. Lower incomes and increased inequality resulting in a reduction in leisure and tourism spend for a year. Demand returning in waves depending on the timing of restrictions being lifted.	Resistance	Recovery	Renewal	
			In the UK, companies are accessing the Covid Corporate Financing Facility (CCFF) and furloughing staff.	Gradual re-opening of attractions and hotels may be possible (many firms currently offering vouchers to secure future business).	The high street has been moving towards 'experience' based offerings and this trend may resume post-pandemic. This would be a much needed sector boost and could be amplified by an increase in demand for UK based attractions.	
Medium Case		A longer decline in demand for leisure travel and a reduction in experience spend. A decline in demand for hotels and travel that lasts for 1-2 years.	Resistance		Recovery	Renewal
			The gradual re-opening of some leisure facilities may be possible under social distancing. Some hotels and cruise ships have been used to house essential workers, being seen as a force for good.		Retaining staff through furlough means that when the sector can re-open businesses are ready to operate.	Demand may increase for UK based hotels and tourist attractions as demand for overseas travel declines.
Worst Case		A devastating impact on the travel industry, with demand plummeting and taking 2 years+ to reach a 'new normal'. Hotels and leisure businesses seeing a longer term fall in demand and some going bust.	Resistance			Recovery
			Whilst some gradual re-opening may be possible, large parts of the sector may be shut down for an extended period of time. There is an opportunity for UK based hotels and tourist destinations to capitalise on the significant reduction in overseas travel.			Some leisure facilities such as sports centres may be able to re-open and gradually restart the sector.

Advanced Manufacturing

Overview and Events

- Advanced manufacturing is seeing a major supply impact from the pandemic, as global supply chains are disrupted and slowed down.
- The global nature of the industry presents a particular challenge. In February China's factories were shut, meaning they were unable to supply the industry with key components. Now these factories are back open but there is a distribution issue, whilst closures in other parts of the world now cause further disruption.
- On 20th May, Rolls Royce announced it plans to cut at least 9,000 jobs, almost a fifth of its workforce, in order to deliver savings of £1.3bn. They have not yet announced where the job losses will fall, but two thirds of the redundancies are expected to be in the UK, with production facilities in Derby expected to be hit hardest.
- This chimes with a study realised by the Centre for Progressive Policy released in April showing manufacturing areas and particularly those in the Midlands could be hit hardest by the pandemic, which could further widen regional inequality.

Trends and Inflection Points

- Parts of the sector are facing a major demand issue, such as aviation as a third of the world's aircraft is now grounded. Rail has not been hit quite as hard; whilst demand for rail travel is down the impact is not expected to last as long or be as damaging. Some non-essential work has stopped but across Europe most Original Equipment Manufacturers (OEMs) are still open.
- Across most of the industry deliveries have begun to slow down and new orders have been paused so suppliers will get a more insightful picture of the scale of the demand issues in the coming weeks.
- 40% of respondents to a poll run by The Engineer believe the main impact on the sector will be that the UK will have a stronger domestic supply chain following the pandemic, with 26% suggesting increased adoption of automation and digital tools.
- These results reflect the latest EY outlook for the sector, which is that "manufacturers must evolve business models, connect products seamlessly utilizing digitization and adopt a customer-centric mindset."

Advanced Manufacturing

Policy Outlook

- In some areas, advanced manufacturing approaches have been called in to help with the pandemic response, for example using digital twin technology. A digital twin is a virtual representation of a physical product or system. Digital twin technology allows factories to simulate their products. Iotics have now used the technology to create a digital twin of every hospital in England, indicating the number of care beds available.
- Meanwhile the Ventilator Challenge consortium, led by the High Value Manufacturing Catapult, is making use of spare production capacity to scale up production of Smiths Detection machines, that are already in use with the NHS, such as the Parapac transport ventilator. The Catapult is best placed to deliver ventilators soonest and is another example of the sector switching focus to adapt to the ever-changing market.
- The Henry Royce Institute is now working with NHS hospital trusts to provide engineering and manufacturing assistance to help cope with rising demand. Manufacturing technology is now being used as part of the healthcare response to the pandemic, increasing demand for the technology and accelerating its development. A change in focus within the market and adapting to the rapidly changing global environment could mean it manages to remain more robust than other sectors.
- Moving forwards, engagement between organisations, investors and the UK Government is not great. This is not so much a pandemic issue as this was the case previously, but post-pandemic improving this relationship will be more important. There are fears that in the space sector Surrey will become a story of somewhere that was ‘once great’ unless there is an intervention. Government investment in a space is key as it drives private investment. A good example is the launch of SpaceX, where the funding happened because NASA and US government had committed to launches. Without that commitment the investment would not have happened. The rest of the world is progressing here and the UK government committing to funding could attract a lot of interest, and stimulate the sector.
- Clean recovery and growth are going to be important to recovery and revitalisation. Emissions are now taken seriously and as places look to ‘build back better’, innovating and developing new technology will drive cleaner and more sustainable growth.

Advanced Manufacturing

Scenario	Shape	Major risks	Implications in time period			
			Q2 2020	Q3 & Q4 2020	2021	2022 and beyond
Best Case		Air travel restrictions lasting around 2 months. Supply chain issues causing global production delays. Workforce safety issues causing further delays in production.	Resistance	Recovery	Renewal	
			Minimise cancellations or postponement of orders. 52% of global executives now taking steps to reconfigure supply chains.	Supply chains reconfigured, with recovery driven by an increase in speed of automation and digital transformation.	Travel volume will reach 100% of pre-crisis levels. Cumulative demand for aircraft over the next 10 years would drop by 4% due to the postponement of aircraft replacements. A shift in the market driven by adapting to new global needs helps accelerate recovery.	
Medium Case		Longer term reduction in production and operations. Economic downturn causes reduction in demand and supply chains take a long time to recover.	Resistance		Recovery	Renewal
			Adjust production cycles to reflect replacement delays of around 18 months whilst keeping the supply chain moving. Firms need to reach a consensus on what the “new normal” may look like.		A “new normal” would be reached for Summer 2021. Reconfigured supply chains aid recovery.	Increase in UK based production helps stimulate recovery and reduces vulnerability to future supply shocks.
Worst Case		Economic downturn causes significant demand reduction. Longer term behavioural changes from businesses and consumers (i.e. flying less) changes where demand lies and the industry struggles to adapt.	Resistance			Recovery
			More significant changes to product mix and production cycles than described in Medium Case. Firms need to reach a consensus on what the “new normal” may look like, whilst protecting their own cash positions. Companies to review their strategies, supply chains and determine how the pandemic can be used as a catalyst to accelerate change.			A “new normal” would be reached, with an increase in domestic production and supply aiming to reduce future vulnerability.

Real Estate

Overview and Events

- Countries around the world have made policy changes, with the UK government offering mortgage holidays and temporarily suspending evictions.
- Whilst parts of the real estate process (the office based elements) have been able to continue, viewings have been largely suspended and the volume of people moving property during the pandemic period has been significantly below normal levels.
- Companies are now making preparations for a return to work, with some viewings running again. Whilst there will be a short term hit to the market, real estate is seen as an “attractive asset class” to investors and long term confidence remains relatively high.
- The Office for Budget Responsibility (OBR) estimated in mid-April that the real estate sector would suffer a 20% fall in output in Q2 2020, a sharp fall but below the 35% reduction in overall GDP forecast, reflecting the relatively high long term confidence levels in the sector.

Sector	Per cent	
	Weight in whole economy value added	Effect on output relative to baseline
Agriculture	0.7	0
Mining, energy and water supply	3.4	-20
Manufacturing	10.2	-55
Construction	6.1	-70
Wholesale, retail and motor trades	10.5	-50
Transport and storage	4.2	-35
Accommodation and food services	2.8	-85
Information and communication	6.6	-45
Financial and insurance services	7.2	-5
Real estate	14.0	-20
Professional, scientific and technical activities	7.6	-40
Administrative and support activities	5.1	-40
Public administration and defence	4.9	-20
Education	5.8	-90
Human health and social activities	7.5	50
Other services	3.5	-60
Whole economy	**100.0**	**-35**

Source: OBR

Real Estate

Trends and Inflection Points

- The real estate sector's performance is often a reflection of the wider economy's performance, so the UK government's support to businesses through emergency loans (£300 billion+) and provision of credit (£100 billion) is vital to the sector as it is aimed at reducing the number of business closures, and as a result the volume of empty business properties.
- Savills UK have outlined four key drivers of a reduction in demand within the real estate market:
    - Uncertainty causing a decline in consumer confidence.
    - Practical difficulties in moving and completing transactions.
    - Falling stock market resulting in consumers feeling less confident in their personal wealth.
    - Negative impact on earnings, employment and wealth generation.

This shows how dependent the market is likely to be on wider trends in the local economy.

Policy Outlook

- Savills are currently projecting a fall in property prices of between 5% and 10% in 2020, but do not expect cumulative 2019-24 growth in property prices to be significantly impacted by the crisis.
- Longer term behavioural changes caused by the pandemic could lead to a shift in the market. As more shops and retailers move online, demand for retail space could decline, whilst demand for manufacturing and warehouse space could rise, due to increased online shopping and companies wanting to reduce their reliance on producing goods abroad.

Real Estate

Policy Outlook (ctd)

- In addition, a rise in working from home could impact the office market. Whilst most companies will not go as far as Twitter in enabling their employees to permanently work from home, the pandemic is set to result a longer term rise in home working, particularly within the expanding IT and digital sectors. Increased home working meaning fewer employees in the office will result in companies needing less space, which will cause a decline in demand for office space.
- There is then an **opportunity for co-working spaces**. As employees work from their employers' office less frequently, but the downsides of working from home such as poor technology and lack of human interaction, creep in, there is an opportunity for local co-working spaces. These spaces would allow people to work from an office space near to where they live, so reduce commutes whilst providing the flexibility and interaction that employees are looking for. This is a real opportunity for places like the EM3 area and others within the London commuter belt, as many may decide that rather than living in London, they can live outside of the city if they only need to commute into London on an occasional basis. This could have the potential effect of spreading the cluster of London's high value jobs across a wider geography, which could particularly benefit those places closest, such as the EM3 area.
- JLL are suggesting a scenario based approach depending on the length and economic impact of the pandemic. They say that early signs for the sector in China (further ahead of the UK) show a degree of cautious optimism, with office return rates of 80-100% in Shanghai and 75-80% in Chengdu and Chongqing.
- Leasing volumes have slowed however, with tenants shifting towards renewal. Leasing within retail has remained subdued, with the slow re-opening of shopping malls and brand expansions only selectively continuing. Meanwhile occupation rates within hospitality remain below 30% and demand has stagnated within the sector.
- Logistics has shown more resilience during the pandemic due to tenants such as e-commerce companies, and in the longer term that is set to continue, both through the rise of online shopping and shift towards domestic supply chains leading to increased demand for manufacturing space, along with a need for more space due to health and safety concerns and social distancing requirements.

What Next?

- The long term outlook remains positive, with investors still showing interest and house prices expected to recover by 2024. Particularly amongst residential property, where demand is likely to be 'pent up' during 2020 and into 2021 and it is the release of this pent up demand that is forecast to stimulate the market once the recovery begins.

Real Estate

Scenario	Shape	Major risks	Implications in time period			
			Q2 2020	Q3 & Q4 2020	2021	2022 and beyond
Best Case		Reduction in demand for property, driven by falling incomes and reduced confidence. Logistical difficulties in completing transactions. Supply chain lag.	Resistance	Recovery	Renewal	
			Companies are trying to keep as much of the real estate process going remotely whilst the pandemic unfolds.	5% reduction in property prices in 2020, with consumer confidence stagnating. Transactions begin to take place more easily.	5% rise in property prices in 2021 with a 15% cumulative rise from 2019-24, driven by a rise in demand through increased consumer confidence. Increase in demand for manufacturing and warehouse space, supply chains begin to recover.	
Medium Case		Longer term reduction in demand for property, driven by falling incomes and reduced confidence. Reduction in demand for retail space due to rise of online shopping.	Resistance		Recovery	Renewal
			Some remote work and movement continues to take place during the pandemic. Rental market suffers due to decrease in student and temporary lettings.		Pent-up demand is released and there is an increase in the 'downsizing' market to drive some recovery.	Potential for released pent-up demand, downsizers and 'help to buy' on new-builds to stimulate recovery.
Worst Case		Tenants default on rent and owners struggle to pay mortgages. Consumer confidence, wealth and employment fall sharply and struggle to recover.	Resistance			Recovery
			Significant reduction in demand, particularly within the co-living, rental and first time buyers markets. 10% reduction in property prices in 2020. Supply chain issues slow transactions down further and there is a significant dent to short term transactional activity.			4% rise in property prices in 2021. Savills still project a cumulative 2019-24 rise of 15%.

Conclusion – key changes to respond to Covid-19 in EM3

Metro —— Dynamics

Responding to Covid-19

	Change brought about	Type	Evidence	Response
	**A sharp drop in output**, with the prospects of a quick "bounce-back" recovery very slim. Impacts uneven across sectors and places.	**Interruption - threat**	Broad consensus across economic organisations and local business. Resurgence of virus where lockdowns have been eased	Depends upon severity. At minimum, continued business support. While there is no room for complacency, EM3's strong recovery from financial crisis gives grounds for optimism
	A steep rise in unemployment, possibly leading to a **mass unemployment situation**	**Interruption - threat**	Universal credit rise, in spite of furlough scheme	Close monitoring of the situation. Jobs creation schemes, delivered in partnership with FE and HE providers – a focus on skills for good jobs in the labour market, driven by productivity (not just plugging a hole).
	A **deterioration of the financial health of local firms**, with increased debts. Likely to dampen investment, harming productivity	**Interruption - threat**	Almost £41bn lent nationwide by HMT, testimony of businesses	Support for capital grant schemes around productivity boosting investments. Helping business gain equity investment (possibly from the public sector).

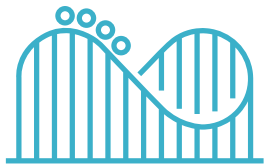
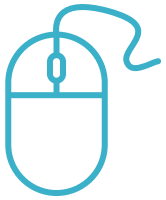
Responding to Covid-19

Change brought about	Type	Evidence	Response
Increased focus on the low-carbon economy, as lockdown has demonstrated various benefits, and possibility of travelling less	**Acceleration – opportunity**	ONS surveys of attitudes, Government focus on tailoring economic support towards green recovery	Support for local low-carbon sector – e.g. clean growth funds. Retrofit programmes on outdated housing stock – also boosting employment. Work with Earth Observation firms on monitoring emissions.
Onshoring of supply chains and a greater focus on "buying British" in response to security and resilience concerns	**Acceleration – opportunity/ threat**	Trade wars, failure of global co-operation in Covid-19 response	Supporting local business networking to deepen supply chain linkages. Lobbying government to protect key international trade partnerships
Stronger Government focus on innovation, with **Government becoming a more active participant**	**Acceleration – opportunity**	Proposal for UK version of US Advanced Research Projects Agency (ARPA), Future Fund supporting startups, OneWeb investment	Innovation policies from previous work more important than ever. Work up big ideas with academic and business partners into proposals (e.g. catapult centres) which go beyond the current funding envelope and rush for "shovel-ready" projects

Responding to Covid-19

Change brought about	Type	Evidence	Response
Growth in the market for co-working space outside of city centres	**Acceleration – opportunity**	Quotes from commercial property execs. High street usage stats showing sharpest decline in big cities	Work with local authorities to identify sites and potential occupiers
Change in preferences for dwellings, with gardens and space now more popular than inner city flats	**Interruption – opportunity**	RICS survey of estate agents, RightMove data, conversations with business	Continued housebuilding, with young professional market especially in mind
Already challenged high streets will struggle to recover, with Covid polarising high streets depending on the economic wellbeing of the local population. Culture-led regeneration will stall.	**Acceleration – threat**	ONS online shopping statistics for April, uneven spatial impact of job losses, conversations with Basingstoke	Help for retail outlets to move their offer online, continued support for high streets to be Covid-friendly, with positive signage etc.

Responding to Covid-19

	Change brought about	Type	Evidence	Response
	**A shift towards domestic tourism** in the visitor economy. Unclear how long this will last for.	**Interruption – opportunity**	Evidence of minimal exposure to international tourists within the area.	Support for marketing to the domestic market
	**Digital skills increasingly vital** for success in the labour market, creating challenges for older/unskilled workers	**Acceleration – opportunity/ threat**	Evidence from BT, and employer skills surveys. More important when working from home.	Work with local training providers and businesses to promote courses, from basic use of word processors, spreadsheets, etc to advanced coding.
	**Cybersecurity to become a more important specialism** as increased home-working creates new risks	**Acceleration – opportunity**	Feedback of local businesses	Support firms in adjacent sectors to move into this sector, working with local academic partners

Overview of changes

Threat

Opportunity

Interruption

A sharp drop in output

Damage to financial health of local firms

Mass unemployment

Shift towards domestic tourism

Greater preference for gardens and private space

Acceleration

Intensification of difficulties for high streets

Onshoring of supply chains

Digital skills increasingly vital

Increased focus on low-carbon

Government more active in innovation

Co-working space outside city centres

Growth in Cybersecurity sector

Metro —— Dynamics

LONDON
3 Waterhouse Square
138 Holborn
EC1N 2SW

(+44) 0203 865 3082

MANCHESTER
Elliot House
151 Deansgate
M3 3WD

(+44) 0161 393 4364