

**The Covid-19 Experience in England:
Eight Essays on the Pandemic and its Management**



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0.0 Preface – the Timeline and the Process

0.1 Setting the Scene

Between March and December 2020, we documented the events surrounding the Covid-19 pandemic. Over those nine months, we wrote eight papers, each of which has been on a topic surrounding the events at that time as the virus spread and the government responded. A number of our readers had suggested to us that the monthly narrative across the year would have merit if assembled together in book form. This is our response offered by way of thanks.

Reading this ‘book’:

This chapter (0) reviews the overall progression of the pandemic in England over 2020.

Chapters 1 to 8 contain the eight original papers. Each paper has a preface of new material that consists of a summary timeline of key events and a brief “look back” from an end of the year perspective. A bibliography of the main sources is provided as a chapter appendix.

Chapter 9 pulls the material together in a conclusion. This brings things up to date for the turbulent month of December 2020 and then goes on to offer some broad observations on what might have been learned.

Chapter 10 is provided as a ‘resource pack’ for fellow researchers. It assembles the full range of sources we consulted - arranged by the day over the timeline of events.

The book is focused very much on the government response in England, noting only in passing how the policies of the central UK Government (which rapidly became the government for England for Covid-19 purposes) differed from the devolved administrations. This is a weakness, and at some time it would be good to link up with researchers looking more specifically at the devolved administrations experiences and to synthesise the learning lessons at the whole-UK level, particularly as we move forward into the post-Brexit context.

We decided to keep the separate papers intact and unedited as a record both of the events at the time and of our thinking as the pandemic unfolded. The individual papers were originally published on the website <http://www.peter-lloyd/papersandblogs>. Bringing them together as a composite set offers an opportunity to put a timeline on the evolution of the pandemic response - with its twists, changes of direction, errors, and U-turns.

We believe that there are many important lessons to be learned; how, for example, the mantra of “following the science” served to produce path-dependency in government; how awarding massive contracts to private companies raised opportunity costs for other options from the sheer weight of the spend; how a new government elected primarily through its position on Brexit found itself blindsided by an event that required a different point of reference ; how a politics of centralisation and privatisation closed out options for other governance models; how the need rapidly to transition from campaigning mode to governing influenced the way communication with the people was handled; and, finally, how it was possible - seeing the evidence - for the government not to respond to the extreme conditions facing the most disadvantaged.

In the outcome, and with the speed of the event, more sophisticated and considered policy governance tended to be over-ridden. Central government reached for one “big lever” after another to meet the

projections of the epidemiologists' models. What could not be done from the centre simply was not on the agenda. This led, with depressing regularity, to a policy being announced from the centre, and then rapidly challenged at the local and other grounded levels as being illogical, inoperable, or just simply wrong. As just one example, on November 30th clarification was sought about what is meant by a 'substantial meal' in a central regulation. A general scramble for what this meant saw massive Google searching. The 'clarification' by the Environment Secretary George Eustice was that "*Scotch eggs would constitute such a meal "if there were table service"*" (BBC, 2020). This hardly helps to engender the trust and credibility that government must have if it expects people to acquiesce in the face of rules that micro-manage their lives.

Yes, of course, the inevitable rush to deal with a fast-moving existential threat offered some justification for what happened at first. Nine months on, however, we find ourselves still following the science, depending on private contractors, resorting to grand messages, operating from the centre and using the "big levers" - but as usual later than recommended. This is as we face a third wave more deadly than either of the first two. The vaccine will undoubtedly change the game but, once again, we see the bold promises, the "one-shot or two shot" controversy, the uncertainty surrounding who shall roll it out and how. We see a move by the Chancellor to offer £9,000 to businesses facing yet another extended lockdown and another step extension of furlough to April 2021. The degree of damage to people, to business, to places along the pathway is bound to be even more extreme – yet one thing we hear nothing of is a plan (of course with variable scenarios) for how, beyond the hoped-for vaccine success, we will do more to achieve an inclusive recovery than wait for the market to solve our problems¹.

Across the sequence of the Chapters that follows, both the policy directives and the context are examined as we saw things at the time. Observers of the process like us were continuously learning and suggesting how policy could respond better. Meanwhile, the juggernaut of central policy rolled on with its "platform of three podiums" telling the people what they must do to "save lives" and "protect the NHS". The papers made calls for other voices to be heard and other governance arrangements to be given consideration. That nothing significant changed on entering the second and now the third wave suggests that learning is not part of the government repertoire.

At no point in the way things played out, was the inter-locking complexity of the causal influences that could drive case incidence and outcomes understood (or even entertained as a mode of thinking). Epistemologically, everything else was relegated to lower importance against the dominance of the modelling approach. Wider causal pathways and drivers for outcomes were set aside. In this, the people were perceived as little more than pieces on a chessboard. They were allowed pre-set moves as determined by epidemiological rules. Government, as the Grand Master, took its playbook from "the science", post-processed through the libertarian reluctance and vacillations of the Prime Minister (Editorial, 2020). The idea that people had any form of active "agency" was not, and still is not, entertained. Personal freedoms are of second order to the rules of the game.

The pathway was struck early and followed faithfully - albeit with an endless sequence of missteps and U-turns as the policy vehicle encountered things it had not thought about and had to go round them again to get back on track. Central control, noted on November 26 as being "necessary and proportionate" by the Conservative MP Stephen Baker (Woodcock, 2020) emerged like a slow-moving but increasing mudslide, pushing aside freedoms as it imposed more and more controls on everyday life. Prior to Covid-19, the

¹ The November 2020 Spending Review did have a five-year forecast - for public expenditure. There was a plan here for fiscal probity. The first active step was to impose a wage freeze for many of those very "key" workers that took the risks and went to work to get us through the early stages of Covid-19.

prospect of a right-wing libertarian government telling people not to work, not to travel, and not to socialise was unthinkable.

Politically speaking, the use of emergency powers alongside the necessary dismantling of normal parliamentary practice through distancing requirements, meant that challenge and interrogation of the dependency path was muted. “We are just getting on with it” was the standard government response. This set aside the normal rules of procurement and legitimacy. The government had little incentive to learn on matters of law and governance, since it entered the pandemic with a large majority and the opposition was embroiled in its own internal struggles. The process of communicating with the people followed the lexicon of campaign best practice – simple messages powerfully directed. There was no place here for engagement with the complexity of what was going on from group to group and place to place. Challenge in the press conferences was carefully managed and the media played its part to report into the expectations of their readership.

As the new year opens, it is astounding how little has changed, and how the prospect of the vaccines is now seen as holding out the hope of final redemption. Meanwhile, the people are still being told what they have to do in a new, as ever late, lockdown and the representatives at other levels of governance are being either castigated for being querulous or lauded for playing the game by the rules. Local public health professionals are being left to do what they can around the failed track and trace and mass testing programmes run by private companies (not a word about track and trace in the Prime Minister’s 5th January 2021 statement).

Business is just to ‘take it on the chin’ and to use the furlough and loan schemes to keep workers where they can and keep going. Schools are first to stay open, then close. Examinations are cancelled. Universities were to play their role as testing centres and guardians of local rules but lockdown has quickly overridden the need for that in the short term. The story of the turbulent events that followed in December after the last of our papers was written is set out in Chapter 9.

Surrounding all this, there is the state of the economy. This was discussed more prominently in Papers 5 and 7. Through the first wave, little serious attention was given to the economy. The debate was more theoretical - about recovery shapes, be they V-shaped or U-shaped or W-shaped. As time passed and as the threat of a dramatic second wave was coming through in the news from some EU countries, government finally picked up on the message. With this in prospect, ending furlough and the loan schemes might not turn out to be as planned; the eviction embargo and rent relief measures might have to be extended; transport might have to be rescued through public ownership or grant aid; key sector bail outs might have to be on the table.

In response, government halted furlough briefly but then was, once again, overtaken by events. The end points for schemes were reluctantly extended, and then extended again. For business at every level, the only certainty was uncertainty, particularly at the end of 2020, with Brexit weeks away and no sign of clarity. The “clarity” that descended on 31st December was no clarity at all. Government continued to be surprised by events. Dido Harding was even surprised by rising numbers of cases approaching the second wave (Perrigo, 2020), and the Chancellor was so surprised at the time by the prospect of another lockdown that he found himself having to act just 5 hours before furlough was planned to come to an end, the Tiers to follow the second lockdown found the Whips surprised that there would be a massive revolt in areas that felt hard done by. And yet the juggernaut rolled on. This is now history as the third wave is upon us and the Prime Minister has declared that the key policy objective is to “*keep the foot on the neck of the beast*”.

The epidemiological models are still the single dashboard instrument. Whatever gets in the way of responding to the pathway they light up is an obstruction to be overcome. The vaccine is on the horizon

and “it will soon be over”. As Paper 8 points out, this is a naïve take - even if true. Tipping points have almost certainly been passed. The economy – with the outfall of Brexit to come – is already in dire straits. The socially and geographically unequal results of running a standardised policy across a highly differentiated landscape has pushed inequality to dangerous extremes. There are serious concerns about the social resilience of the country to the shocks – many of which were just beginning to arrive with the second wave and that may well go to further extremes by the third.

Unemployment is already at 4.9 percent (on the standard measure) and is expected to go much higher – perhaps 7 percent or even higher. Poverty, particularly among children, will have far exceeded its already previously shocking level. Homelessness is on the rise. Mental health is already forecast to be a major medical issue for 2021. Map this by place, and it will fall upon those places already among the most multiply disadvantaged – dominantly in the major cities and in the north but also the poorest boroughs in the capital – joined (perhaps temporarily) by the struggling airport towns of the outer South East. This is a combined recipe for social breakdown.

Once again, there is an opportunity to project some clear outcomes from the pandemic event, but all we hear is the Prime Minister’s repeated commitment to his grand pre-pandemic “levelling up” agenda. There is nothing in the record that the eight papers set out, that would offer confidence that government has begun to think forward beyond the immediate crisis to head off the massive economic and social crisis to come. There seems to be a real and continuing disconnection from the reality of the everyday lives of a large segment of the population.

Each of the individual papers – set out as chapters in what follows – developed a narrative around the stage of the pandemic and the policy process at that particular time. Looking through them as a set provides a wider context, critique and some recommendations. It is possible to see what was known, when, what was to be expected and what never appeared in the policy framework. The juggernaut, it seems, was incapable of deflection. Lockdown – simple and brutal – was the first-choice instrument and its differential outcomes on people, business and place were just “what it takes”. For many, however, what it might “actually take” is the imposition of a life threatening or family survival condition.

The requirement to “stay home” means something very different to those people and families that suffer multiple disadvantage. Some in our society (and by no means a small number) may find that “staying home” could push them and their family to the margins. Similarly, some may find themselves confined to a multi-person congested living space that makes a nonsense of recommended distancing practice. The most disadvantaged are likely to confront both sets of circumstances in combination. As a number of the following papers show, we have a very good idea of who and where these people are - but simply routing them to State run support through Universal Credit or the Job Support schemes as a remedy is simply not enough.

What it would really “take” to deal with this situation – which the evidence also shows links closely to *keeping viral transmission in play* – is a component of policy that acts *locally and in context*. The early scholars looking at cholera transmission would have had no difficulty recognising this. For almost a year voices from public health, the local authorities, the voluntary sector and people like ourselves have been calling for a strong local supplement to central policy – but without response. As we arrive at a third wave and where the dangers of *severe recession and widespread social distress* are still real and present; government policies, uniformly applied, continue to follow the laid down pathway. Macro-level financial measures to control the burgeoning public debt seem still to limit doing “what it takes”.

The Grand Master controlling the chess board in this case seems to have an ability to think moves ahead in fiscal policy (a five-year prospectus) but no vision that recognises the critical importance of what is going to happen to the pawns on the way to the endgame.

0.2 Sources

In the fast-moving environment of the pandemic, information sources need to be immediate as well as reliable. For us, waiting for the glacier of academic peer review was not appropriate to our aim, which has been to elicit immediate discussion, reflection and debate. Where academic research has been published rapidly, we refer to it. Inevitably, then, we have made extensive use of the mass media, focusing in particular on the Financial Times, the Economist, the BBC, and the Guardian as key sources. We range also across a wide range of other media, from right to left wing, aiming to show how the pandemic touches the lives and sensitivities of all the various audiences.

0.3 Timelines

We are aware that the events surrounding Covid-19 move fast, providing a summary timeline in this volume would freeze it at the point we publish the book.

Consequently, we refer you to some ongoing and well-maintained timelines of the pandemic in England and the UK:

- Wikipedia has extensive resources: https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England and https://en.wikipedia.org/wiki/COVID-19_pandemic_in_the_United_Kingdom
- For further reference, Wikipedia provides timelines also for the world https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic and for the UK devolved administrations: https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_Scotland https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_Wales and Northern Ireland https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_Northern_Ireland
- CNN provides a global timeline at <https://edition.cnn.com/interactive/2020/health/covid19-pandemic-video-timeline/>
- The Health Foundation has a structures resource at <https://www.health.org.uk/news-and-comment/charts-and-infographics/covid-19-policy-tracker> which is structured along five policy areas
- The Guardian had a ‘timeline of chaos’ on 16 December 2020 <https://www.theguardian.com/world/ng-interactive/2020/dec/16/covid-chaos-a-timeline-of-the-uks-handling-of-the-coronavirus-crisis>

0.4 Data

The data sources about Covid-19 have been building rapidly, but also changing in their nature and detail. We have avoided filling out the text with lots of tables and graphs. There have been some very good, and some truly dreadful examples of use of statistics in the media. Two particular irritations for us have been the naïve use of percentages and a lack of understanding of variations in geographies and scale.

- As an example, taking the 7201 ‘medium level super output areas’ MSOAs in England, the 2019 population estimates (www.nomisweb.co.uk) range from *Newham 013* with 26,513 residents, to *Isles of Scilly 001* with 2,224 residents. If both areas saw an increase of 100 people that would be an increase of 0.38% for Newham, and 4.5% for the Isles of Scilly. Simply reporting percentage increases would not take account of the base numbers. In the Covid-19 ‘interactive map’ at

<https://coronavirus.data.gov.uk/details/interactive-map> there have been examples of an area increasing the number of cases from 4 to 5 and reporting a '50% increase'.

- A further irritation is evident in our papers, is where government decided on early Covid-19 policy based on administrative regions and the data reported it in this way. This meant that much more was concealed than was revealed.

Links to the diverse sources in the bibliographies will display many statistics and graphics, but for reference purposes there are some core sites to acknowledge:

- The global statistics by country by John Hopkins University
<https://www.arcgis.com/apps/opsdashboard/index.html>
- The World Health Organisation Covid-19 dashboard <https://covid19.who.int/>
- For the European Union, Eurostat is the resource <https://ec.europa.eu/eurostat/help/faq/covid-19>
- For the UK the Office for National Statistics maintains ongoing datasets and produces regular statistical publications
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases>
- Daily cases and graphs are available at <https://coronavirus.data.gov.uk/details/cases>

0.5 Acknowledgements

The papers, now matching the chapters in this volume (hence the odd numbering system), were accessed on average by over 500 readers from what we know through LinkedIn. We thank them for their perseverance. We would like also specially to acknowledge the contribution of Murray Lloyd as our non-academic, editorial reader of last resort for each paper. He was our “man on the Clapham omnibus” - keeping us away from academic exceptionalism and trying to make things more widely readable..

0.6 Chapter bibliography

BBC. 2020. *Covid-19: Drinkers in tier two 'could order Scotch egg' as substantial meal*. British Broadcasting Corporation (BBC). Published November 30. Available: <https://www.bbc.co.uk/news/uk-55129828>. [Accessed November 30 2020].

COLE, H., DATHAN, M. & REILLY, J. 2020. *COLD TURKEY Boris Johnson urges Brits to cut back on Christmas plans as experts say we should eat turkey dinner OUTSIDE with gran*. The Sun (UK). Published December 16. Available: <https://www.thesun.co.uk/news/13500387/boris-johnson-cut-back-christmas-plans/>. [Accessed December 17 2020].

EDITORIAL. 2020. *The Guardian view on Johnson and Covid rules: a habit of complacency*. Guardian (UK). Published December 16. Available: <https://www.theguardian.com/commentisfree/2020/dec/16/the-guardian-view-on-johnson-and-covid-rules-a-habit-of-complacency>. [Accessed December 17 2020].

PERRIGO, B. 2020. *'A Perilous Turning Point.'* *How England's COVID-19 Reopening Went Terribly Wrong*. Time. Published September 22. Available: https://time.com/5891509/uk-coronavirus-restrictions/?utm_source=pocket-newtab-global-en-GB. [Accessed September 22 2020].

SHUKMAN, D. 2020. *Covid Christmas: 'Avoid board games and sleepovers'*. British Broadcasting Corporation (BBC). Published November 27. Available: <https://www.bbc.co.uk/news/health-55107473>. [Accessed November 27 2020].

WOODCOCK, A. 2020. *New Covid tier system branded 'authoritarian' by influential Tory as backbench revolt looms*. Independent (London). Published November 26. Available: <https://www.independent.co.uk/news/uk/politics/boris-johnson-tiers-revolt-steve-baker-b1762284.html>. [Accessed November 27 2020].

1.0 A World Transformed: Connectivity, Speed, Threats, and Vulnerability

This paper was finished on 1 April 2020. The following table shows the salient events of the previous month as the pandemic arrived in the UK.

The Pandemic Summary Timeline – 5 March to 1 April 2020

5 March – The first death from coronavirus in the UK is confirmed.

8 March – A third death from coronavirus is reported with the largest single-day increase so far (273).

11 March – The Bank of England cuts its baseline interest rate from 0.75% to 0.25%, the lowest level in history.

12 March – Public Health England stops performing contact tracing, as widespread infections overwhelm capacity.

17 March – NHS England announces that from 15 April all non-urgent operations in England will be postponed, to free up 30,000 beds.

20 March – Prime Minister Boris Johnson orders all cafes, pubs and restaurants to close from the evening of 20 March, except for take-away food. Nightclubs, theatres, cinemas, gyms and leisure centres are also told to close.

21 March – The Health Protection (Coronavirus, Business Closure) (England) Regulations 2020 (SI 327) come into legal effect.

23 March – Television address by Boris Johnson announcing a UK-wide partial lockdown to contain the spread of the virus. The public are instructed that they must stay at home. The police are given powers to enforce the measures, including the use of fines.

24 March – The first NHS Nightingale Hospital at the ExCeL London is announced.

26 March – The Health Protection (Coronavirus, Restrictions) (England) Regulations 2020 (SI 350) (the 'Lockdown Regulations') comes into effect with significant restrictions on freedom of movement.

Source: Derived from Wikipedia²

1.1 Looking back at Paper 1

As the table above shows, when we first sat down to write a paper on the subject of Covid-19 the world was a very different place. It was April 2020. We had seen the first hint of something potentially devastating during the month before. However, we had no idea at that stage quite how unprecedented the impact would be and how extreme were the changes to our lives that were to come:

² https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

- There was still a focus on the **recovery from the global economic crisis**, with the rate of employment high (over 70%), and unemployment low (around 1.3%) but wage rises flat..
- The **health focus** was about the usual winter pressures (such as seasonal flu and respiratory diseases) and on the capacity within the NHS to deal with them.
- In the background at the time were rising concerns about the likely impact on employment and livelihoods of the arrival of the **digital transformation** with its potential for job replacing technologies.
- Associated with this, was general anxiety about **the state of the retail High Street**. The new technologies were shifting the way people were shopping, and there were clear signs that the old model of retail was experiencing systemic change and beginning to shift away from town centres.
- **Digital communication was being taken up widely**. Most people had a mobile phone. There was widespread access to a tablet, laptop or PC. That is not to say that there was ubiquity of access to digital technologies, or that exclusions did not exist (usually termed the 'digital divide'), but there was a wide uptake of digital media.
- On the leisure front, the availability of **cheap airline travel** was making the annual holiday in the sunshine a regular choice. The airlines were expanding rapidly. Cheap and flexible fares were the touchstone. Hub airports were busier than ever - processing millions of passengers every year.
- At the end of 2019, **congestion and crowding** were central to the mode of life, People accepted it as normal that they would come together, shoulder to shoulder, across much of their daily lives - while working, while travelling, while enjoying a performance, while attending a football match.
- **The city was the apex of this movement and intensity** with its daily commuter flows, crowded roads and crammed public transport, congested pavements and over-spilling pubs and entertainment venues. All this was accepted without question. It was just the way life was lived.

Then came Covid-19. A society where the essence of life was founded on human social interaction in intense and extreme forms was faced with a virus with the potential to colonise every corner of the inhabited globe. Looking back; this felt less like a sudden shock than a creeping realisation that this was a deadly threat.

- This complex, dynamic and closely interconnected system infused with hypermobility seemed to be ideal to facilitate the **fast global diffusion** of Covid-19.
- The way the governance system reacted seemed entirely predictable and necessary. Given a first requirement to close borders to stop transmission, the **Nation State** became the first responder.
- The global was quickly pulled back to the national. **Re-bordering** was enacted at speed, with barriers to movement put up that would have been considered unthinkable beforehand.
- Person to person transmission required the Nation State to intrude at the heart of individual life. This turned pre-pandemic politics upside down demanding that liberal freedoms be suspended in favour of **legal regulation and enhanced surveillance**.
- It was already clear at the end of March 2020, that Covid-19 was going to bring in its wake changes with the potential to **upend economy and society** as a whole. It was an unprecedented economic shock that would need both immediate remedial action and a willingness to keep an eye on scenarios for the future.

- A critical guide to looking forward, even at this early point, was that the pandemic was playing into and working on emerging trends - above all **growing inequality** and the politics emerging from it (Sample, 2020).

All this was being tentatively explored and signalled in Paper 1. It was partial. It was incomplete. But, as the process evolved, we found ourselves returning to these key themes in successive papers. Yes, it was a sudden and devastating shock and no government could have resisted the need to “move quickly and break things” as Dominic Cummins had declared as his plan for government before the pandemic. But looking back from nine months on, and with a possible third wave in front of us, this understandable position for the outset cannot survive as a continuing justification when so much has been learned along the way. A sequence of interventions has been deployed largely in reaction to events. There has been no clear sense of strategy and government has far too often been surprised for the population to be confident that it was in control. Better understanding was there. but the evidence shows that it was filtered through the narrow lens of government predisposition.

PAPER ONE: ‘A WORLD TRANSFORMED’ FOLLOWS

1.2 Introduction

1.2.1 Hyper-speed changes to our world

Who could have imagined that a paper on the impact of the digital transformation and labour and skills shortages, written in late February 2020, would so quickly come to look like economic history? The storyline of that paper; *Facing the Digital Transformation: Emerging Labour and Skills Shortages* (Lloyd, 2020) was that, far from worrying about the job losses to come from the arrival of artificial intelligence (AI), the reality on the ground was one of labour and skills shortages.

In some sectors and locations, labour markets had become tight and employers in large numbers were concerned about shortages of the skills and competences for the work they wanted to carry out. Governments had been pleased to tell their electorates that unemployment was down, and that employment was up. There was a movement to look more closely at those who were inactive and out of the labour market and to start thinking about what might be needed to give them the skills they need to join the mainstream. The economy was rolling along nicely - but a month is a long time under a modern global pandemic.

1.2.2 Hypermobility and the jump from local to global

That turbulent month of March 2020 provided those who of us were writing on the nature of the Fourth Industrial Revolution with a sharp lesson about the deep inter-connectedness of things in a highly mobile global economy and society. Interconnected, complex systems like this have some attributes that can allow things to cascade out of control with unexpected outcomes and this is what we are seeing³. At base, what happened with Covid-19 after November 2019 to disrupt the world had its roots in the evolving nature of the global economy under free market Neoliberalism – the dominant economic system of the Western world for the last four decades.

³ A classic feature of these systems is the ‘butterfly effect’ where “a small change in one state of a deterministic nonlinear system can result in large differences in a later state” https://en.wikipedia.org/wiki/Chaos_theory - combined of course with a large dose of uncertainty.

The virus was unleashed in a world that is deeply interconnected, interwoven by complex just-in-time supply chains and 'shrunk' by mass air travel. It flourished as a consequence of the hypermobility of people travelling for business and consuming leisure experiences - from both West and East: go and visit the Orangutans in Borneo, travel around Vietnam, see Venice and London, have a luxury experience on a safari? That is not a problem - just click online and it is booked.

As a further part of the same process, the emergence of the global gig economy (predicated on the organisation of transactions and work through internet platforms and so much part of our modern world) is one of a number of developments that keep some people in place while demanding that others (the dealmakers) travel the globe to make the business connections. Consumers sit at home (in place) while eBay, Amazon, and Alibaba source their material desires around the world, speeding them to us via ever interlinked logistics systems. Spawned by our modern consumerist expectations (the 'tyranny of convenience'), we wait for fast delivery at home. Increasingly sped-up logistics systems are an essential part of the deal.

We did start to have some worries about the impact on the planet of some of these ecommerce behaviours: *"Amazon emitted 44m metric tonnes equivalent of carbon dioxide last year (2019) — roughly the same as Denmark. Emissions at logistics company UPS also rose 6 per cent last year to 14.6m tonnes from a year earlier, in part because of increased reliance on aircraft"* (Abboud and Hodgson, 2019). We listened to Greta Thunberg berating the United Nations about the environmental damage⁴ but nothing was heard about the potential threat of a pandemic. Naturally, it is easy to visualise a glacier retreating, a polar bear struggling to find food, or a devastated rainforest. It is much more difficult to visualise a microscopic virus attaching itself to people as global mobility vectors and invading countries.

1.2.3 A virus waiting for the opportunity

The fastest way for a virus to travel around the world is by being attached to the human beings who have paid for their journeys to move rapidly from place to place. If a virus was clever enough to design the transmission system that would maximise its impact, it would probably choose to expand fast air travel in a world infused with the connected hypermobility of people.

So here we are. Mobility without significant limits has become a vital component not just of the international economy but of the expected experience of the citizenry. In the EU, as an example, the single market relies on the free movement of goods and workers and it actively moves students around under Erasmus+. The Schengen zone gives its citizens friction free travel across national borders for work or leisure. Inside European countries the inter-regional movement of people is also considerable (12 million worker movements a year (ESTAT, 2020b)). Free movement and de-bordering have evolved to create a friction-free mega-space as the basis for everything from leisure pursuits and social interaction to town twinning and collaborative research.

Multiply this up by other similar arrangements between countries and trade areas around the globe and add it to the huge mass movements inside the world's largest nations and the numbers on the move are simply staggering (A glimpse at global air traffic on Flight Radar 24 on any given day before Covid-19 tells the story). Take China, for example, where IATA statistics for air travel for 2018 note that:

"With close to 4 billion origin-destination (O-D) passenger journeys worldwide in 2018, domestic routes within China again provided the largest incremental increase globally in the number of passenger trips, adding just under 50 million journeys." (IATA, 2019)

⁴ <https://www.youtube.com/watch?v=KAJsdgTPJpU>

Until now we have taken this as the norm. We expect to be able to fly, at low cost, for work, for play and to seek out the most alluring tourist venues across the globe. We do worry about some malign features crossing borders. We have Europol⁵ for example to watch out for criminal contagion. Australia and New Zealand impose strict restrictions on what vegetation and foodstuffs can be brought into the country by passengers. They seek to avoid contagion with their agricultural system and use sophisticated mechanisms and technologies to enforce biosecurity⁶. But, except in the short term when frightened by events like SARS, MERS and H1N1 (and lapsing thereafter), we do not maintain systems to stop people carrying a disease that could create a pandemic⁷. As we are now seeing, when this happens, we find ourselves forced to use dramatic ex-post responses to *stop mobility itself*⁸. So, we shut off the prime motor force of the global economy we have built over the last 40 years.

1.2.4 Justified emergency action and concerns for the aftermath

Facing the need to react swiftly ex-post to a mega-crisis like Covid-19, we have no time to consider the long-term consequences of actions we feel bound to take. The personal freedoms we so cherish in the West have been removed in hours. The power of the central state to tell us what we can and cannot do and to use all the means at its disposal to watch that we carry out its wishes, is accepted not just with acquiescence but with acclamation (ECONOMIST, 2020).

The rule of law has been suspended in a situation where there is no time to legislate or scrutinise. Of course, there may have been no choice for politicians, given the scale, speed and deadliness of the crisis. As a result we see governments (such as the UK) suddenly partnering with the data oligopolies that only recently they were trying to regulate (Murgia and Beioley, 2019): “*The NHS has confirmed it is teaming up with leading tech firms to ensure critical medical equipment is available to the facilities most in need during the coronavirus outbreak*” (Kelion, 2020a).

The models to which we find ourselves increasingly having to defer tell us this is what must be done and we have to hope that they are right. Economy and society are shocked into a stop condition, while we watch the trends of the graphs of exponential rises in cases and deaths and hope for the arrival of the point of inflection. Unprecedented is the word of the moment and Yuval Noah Harari sums it up concisely:

“That is the nature of emergencies. They fast-forward historical processes. Decisions that in normal times could take years of deliberation are passed in a matter of hours. Immature and even dangerous technologies are pressed into service, because the risks of doing nothing are bigger. Entire countries serve as guinea-pigs in large-scale social experiments.”

But he also issues a warning that we will go on to discuss later:

“Many short-term emergency measures will become a fixture of life. ... What happens when everybody works from home and communicates only at a distance? What happens when entire schools and universities go online? In normal times, governments, businesses and educational boards would never agree to conduct such experiments. But these aren’t normal times.” (Harari, 2020)

⁵ <https://www.europol.europa.eu/>

⁶ <https://www.abf.gov.au/entering-and-leaving-australia/can-you-bring-it-in/declare-it>

⁷ Back in 1969 the novel “The Andromeda Strain” by Michael Crichton was prescient in the phrase (page 109) “*When you think about it,*” Leavitt said “*we’ve faced up to quite a planning problem here. How to disinfect the human body - one of the dirtiest things in the universe - without killing the person at the same time. Interesting.*”

⁸ <https://www.homeaffairs.gov.au/news-media/current-alerts/novel-coronavirus>

1.2.5 Previous warnings were ignored

So, to look at how we were overtaken by a disease originating in China but sweeping quickly across the entire globe, we have to look for the causal context through more than epidemiological models of contagion. With the economy and society we have been building for decades, we have created a continuing paradise for a globally ambitious virus, which (if we were to take the view of 'alien invasion') is saying to the world '*I want to either destroy you or your economy – or preferably both*'.

This sort of transmission system with lethal effects has been known about for a long time. We have had Titanic-style warnings about the potential disaster looming over the horizon - SARS was a clear red flag (Butler-Jones, 2020). The sudden, deadly arrival of SARS in 2003 was dramatic and its containment was regarded as one of the biggest success stories in public health. Chillingly, we knew even as early as 2001 that more of the same was an inevitability:

“SARS will not be the last new disease to take advantage of modern global conditions. In the last two decades of the 20th century, new diseases emerged at the rate of one per year, and this trend is certain to continue.” Woolhouse and Dye 2001, cited in (Heymann and Rodier, 2004)

We had a second chance. In 2009 the H1N1 virus rang the same alarm bells again but, in the aftermath of the 2008 crash, most governments were too busy with the banking crisis to take notice – financial crash 'contagion' across the banking system was the major concern of the time. Worse still, in the years between then and now a fixation with austerity as a remedial financial measure found countries like the UK drastically reducing their expenditure on and interest in public health – standing down the lookouts. Professionals in the field were well aware of the hazards ahead, but the push for economic and financial recovery had governments looking the other way when the metaphorical iceberg of Covid-19 hit the apparently unsinkable ship of Neoliberal capitalism.

1.2.6 The way prepared – space-time convergence

Understanding the process that has led us towards today's potential healthcare cataclysm, we can see that it has been about much more than failing to heed signals in an ocean with known hazards. What happened has a clear systemic basis in the way the digital transformation brought hypermobility into what was an already internationalised and highly mobile economy and society. Internationalisation, courtesy of air travel and satellite communication has been with us since the 1960s, but the last decade and a half has brought entirely new time-space conditions to the world of business, work, and leisure.

Space-time convergence (conceptualised by David Harvey - see (Warf, 2017)) has brought everybody closer together and the most distant places in easy telecommunications or travel reach. Socio-spatial distances have imploded at the same time as people have become able to seek out business opportunities and look for leisure experiences in the remotest corners of the globe. Tourism is a core economic activity and attracting tourists to spend their money in your location is an essential policy goal. On 23 March 2020 Eurostat noted that:

“In 2018, tourist accommodation establishments in the European Union (EU) recorded 168 million arrivals from third countries. This corresponds to a total of 512 million nights spent by tourists from outside the EU and an average length of stay of 3.0 nights at the accommodation establishment where they checked in.” (ESTAT, 2020a)

Borders have become increasingly porous or have been removed altogether to profit from the free movement of goods, workers, and tourists. Enter a new disease that in past times would have only had local or regional significance. Insert this into a hypermobile, massively connected system and, as the public

health experts were telling us for a decade, you can expect something like the catastrophic impact of Covid-19.

1.3 The virus and inequality

1.3.1 The labour market under the international digital economy

Meanwhile, this same system of inter-connected hypermobility was busy laying down more conditions that would make the arrival of the virus more devastating. A precursor paper to the one on skills originally completed in January 2019 (Lloyd, 2019) looked at labour market trends and the implications for them of the modern digital economy. There was a connecting thread, which was the rise of the internationally configured platform economy opening the door to a radical re-working of traditional labour contracts in a world of internet companies. A feature of this was the demise of so-called 'fringe benefits' – those features (such as holiday and illness pay) that have provided a degree of social protection for workers in hard times.

The earlier paper showed that zero-hour contracts, short-time working, and non-standard forms of labour contracting were fast becoming the norm for up to a third of those in work. The share of this segment in the workforce total has been rising strongly. Platform or gig-economy jobs are, of course, just one element within a more general story of a rise in contracts with few worker benefits and protections. Add to this the post-2008 rise of the self-employed, who also do not have the luxury of employee-based contract protections and it is clear that a substantial and growing share of the working population is more vulnerable than ever to economic shocks and to downturns of any kind (Braun et al., 2020). Average wages have been flat since 2008 – a statistic containing the skew that some at the top have done very well while many more at the bottom have seen little improvement. The self-employed have been much less well treated in the UK in response to the economic shutdown: *Coronavirus: Self-employed bailout 'problematic'* (Islam, 2020).

So here is a working population that is substantial, that is not well paid and above all that is highly vulnerable to any shocks that prevent them working flat out to support their families and to service their rent and debt obligations. They simply have to go to work, whether they are ill, exhausted, disillusioned, or exploited. They have no savings reserve (no resilience to risks or uncertainty). They often have no time to learn the skills that could improve their situation or to look for better jobs.

Many of these workers find themselves in the low paid margins of the public sector where privatisation has brought in for-profit contractors to run everything from school catering, to adult and children's care, care home assistance to cleaning and waste disposal. It is a strongly gendered set - with women playing a dominant role. Many others are in the Voluntary and Charitable Sector (VCS) discharging the obligation of the cost-efficient State to the disadvantaged, by way short term service contracts that leaves little room for good wages or employee benefits.

1.3.2 Winners and losers; First class or steerage

Now throw in the coronavirus pandemic with Government requirements to close down and lockdown and for many that becomes a simple issue of work or starve - as of March 29 potential starvation is now risking social unrest in Italy, and potential organised looting of food stores (Lockwood, 2020). As disaster hits, lockdown against the virus looks very different for this group as opposed to their fellow citizens who can carry on working from home using the internet and the video conference, can sit in their garden when the sun shines, can use their accumulated resources still to buy online the services and goods that make things a little easier (DeSilver, 2020). Mercifully, the UK government - after trades union and business pressure - realised this early in March 2020 and moved to provide a financial lifeboat.

For many of this group among the working population, being 'left behind' as the literature in some quarters puts it, is not new. The UK already has the status of having the highest levels of inequality in the EU. It has a particular geography – rural, old industrial towns and dispersed widely through the dense populations of the major cities. Adding in the unemployed, the inactive and the homeless, these are the people likely to be most drastically affected by isolation, social distancing, and the lockdown necessary to suppress the transmission of the virus. They are also those most unable to cope with the collateral effects of everything surrounding the coronavirus event (as also is the case in the US: (Coppola et al., 2020)). Imagine the impact of the current situation on people for whom the following is an apt description:

“30 percent of workers don't feel like they earn enough to maintain a decent standard of living (up from 26 percent in 2017). Almost one in four workers sometimes have trouble meeting their basic living costs because of income volatility (24 percent, up from 19 percent in 2017). Moreover, a significant number of workers lack financial resilience – 36 percent would struggle to pay an unexpected bill of £100; 59% would struggle to pay an unexpected bill of £500. A further 45 percent don't expect to have enough in savings and pensions to maintain a decent living of living in retirement. While 32 percent are concerned about their levels of debt.” (Conway and Wallace-Stephens, 2019)

The precursor paper to this one warned of “*really significant short-term disruptions*” on the way to the hoped-for job bonuses of the new digital economy. It was unimaginable that, less than three months later, the same people described above would have to face the catastrophe of a pandemic lockdown. The lifeboat will not be enough and on recovery from the event we will surely need to re-visit the question of how right it is to load the downside risks of labour market shocks onto the most disadvantaged in an unequal society.

1.4 Beyond the pandemic event: no simple reboot

On the other side of the pandemic event we can expect some major discussions on what sort of society we left behind, what happened to whom during the event itself and what might the post-coronavirus world look like. The debates will be sharpened by people's responses to the extremity of the measures needed and from the differential nature of the experiences that flowed from them. It is almost impossible to deal with the complexities involved, but we offer the following section as an invitation to discussion.

Gideon Rachman (March 23rd 2020) ushers us into the discussion:

“The pandemic is demonstrating that in times of emergency people fall back on the nation-state — which has financial, organisational and emotional strengths that global institutions lack. Second, the disease is revealing the fragility of global supply chains. It is hard to believe that large, developed countries will continue to accept a situation in which they have to import most of their vital medical supplies. Finally, the pandemic is reinforcing political trends that were already potent before the crisis broke - in particular the demand for more protectionism, localisation of production and tougher frontier controls.” (Rachman, 2020)

As the quotation shows, there will be those issues that arise directly from the event itself and from where it emerged against the politics of the moment. In background there are those broader concerns for the economic, social and political system we have built around ourselves.

1.4.1 The nation state as the locus of action

It was inevitable that the nation state had to step up to intervene in the Covid-19 crisis. This is where constitutional responsibility for the health of the people resides and where the levers of power exist to close

down borders and have people 'locked down' and forced to stay indoors⁹. It was the locus of the first tool in the box to stop the rampant transnational and internal transmission of the virus.

Re-bordering was enacted at speed with barriers to movement that would have been considered unthinkable beforehand (hence the views of Yuval Noah Harari noted earlier). Inside those national borders, in a matter of weeks, control of all movement by the population became another necessary requirement. In effect, by government decree the new boundary for mobility was set as people's front door. Only the hyper-connectivity of the internet survives the shutdown – there is still a world for economic and social interaction among those able to be active in it. Perhaps try to imagine what we would have done if the pandemic had occurred in 2005, well before the hyper-connectivity we enjoy today (Cellan-Jones, 2020).

Outside the front door, 'policing social space, such as the use of drones by the UK police (BBC, 2020) was the inevitable next step – to make sure the lockdown rules were not transgressed. For centrally controlled surveillance states like China (Mozur et al., 2020) or Russia (Ilyushina, 2020) this meant not a dramatic re-writing of the terms of citizen freedom, but more an intensification of a regime in place. Success in controlling the outbreak, we now hear, is the outcome in China at least. For the western democracies this sudden removal of freedoms is almost as cataclysmic as the pandemic itself (ECONOMIST, 2020). Personal liberties have been set aside in a way that challenges the entire constitutional democratic order.

1.4.2 Surveillance as a necessary evil

We should not be complacent that, once put in place, these challenges to personal freedom will simply disappear once the crisis ends. Before Covid-19 happened, Shoshana Zuboff was alerting us in the so-called 'free world' to the arrival of what she called the age of Surveillance Capitalism (Zuboff, 2020)¹⁰. Her concern was that (largely without us knowing) the online titans Google, Amazon, and the others were gathering, processing and commercialising vast amounts of data about us as individuals. For us in the West, the technology is in place. The big data organisations are already in the field from their commercial activities. They are clamouring to be of assistance to governments in the tracking and monitoring of people and their health.

Of course, we cannot dispute that tracking people and their health status can help (Kelion, 2020b) and that it will be a short-term situation, but there are some key questions to come for our discussion here. For how long, what will be removed, what new powers will be left in place and what will happen to ensure that, while we arm ourselves against future threats, we can protect our democratic freedoms and our personal privacy. Calling the nation state into immediate action was clearly essential given what confronted us. The fact, as Gideon Rachman points out, that it chimes in well with current US claims for "*more protectionism, localisation of production and tougher frontier controls*" (and also with the UK obsession with Brexit) should alert us to a thread of political thought in the aftermath that might gather momentum (Rachman, 2020). While reversion to the dominance of the nation state is fine as the first tool in the box to address Covid-19, we need to make sure that we keep it in perspective.

⁹ Although this is not always the case, and there are not (as of March 30) such severe lock-down conditions in Sweden: SAVAGE, M. 2020. *Lockdown, what lockdown? Sweden's unusual response to coronavirus*. British Broadcasting Corporation (BBC). Published March 29. Available: <https://www.bbc.co.uk/news/world-europe-52076293>. [Accessed March 29 2020].

¹⁰ Zuboff defines surveillance capitalism as the commodification of 'reality' and its transformation into behavioural data for analysis and sales.

1.4.3 Retaining a global perspective

Pandemics are, by definition, global events. Global warming, to which we should now address ourselves much more forcefully, is a whole-world concern. Establishing what is good and what is bad about hypermobility and a system of complex interconnected international global supply chains is something that needs an international view, not a protectionist nation state one. We should not let the fact that a virus on the loose can jump onto the system and kill vast numbers be a reason to pull up the drawbridge on globalisation more generally – though there will doubtless be voices enough for us to do this in the aftermath. After all, we should not forget the terrible history, in the first half of the 20th century, of the rise of the nation state at a time of recovery from a crisis.

Yuval Harari has a view of the context against which we should address the problem:

“Humanity needs to make a choice. Will we travel down the route of disunity, or will we adopt the path of global solidarity? If we choose disunity, this will not only prolong the crisis, but will probably result in even worse catastrophes in the future. If we choose global solidarity, it will be a victory not only against the coronavirus, but against all future epidemics and crises that might assail humankind in the 21st century.” (Harari, 2020)

1.4.4 Neoliberalism and hypermobility: a system in need of review

We must emphasise that mobility itself is not the problem any more than the technologies that have underpinned its move to acquire the ‘hyper’ prefix. It is to the way mobility has been deployed, performed and in whose interests that we have to turn for an understanding of how we got here. To explore this, we have to examine the Neoliberal stage of free market capitalism. Neoliberalism enveloped the world, brought in just-in-time logistics and used its global reach to depress wages and commodity and food prices. The first round of new technologies made the ‘Big Bang’ possible and opened up new deregulated markets for complex financial products. The second, with AI and Big Data, has played us all into the ‘tyranny of convenience’ boosting and fast servicing our consumer needs.

It brought us what we wanted – a vast array of on demand goods and services, Facebook, Booking.com, Uber, AirBnB and Amazon, the opportunity to see the far corners of the world with cheap airlines, spectacles and shows booked easily or live-streamed. It brought us the credit lines and financial products that enabled us to borrow from the future for consumption today. It made some companies and some people staggeringly rich. It gave us the freedom to choose in a deregulated world of low taxes – and so much more.

But we have just discovered to our enormous cost something it did not give us (or to be more precise something we collectively did not demand from it with our wide freedoms of democratic choice), which was security against a shock on the scale of a Covid-19. It also did not (again because we did not will it to) give us the comfort of knowing that, to squeeze the Titanic metaphor one more time, we are ‘all in the same boat’. The devastation brought by the virus will be differential among people, inside countries and across the globe. Mostly indiscriminating in itself (except by conditions such as age and co-morbidities) it is diffusing across a world of extreme inequality.

Neoliberalism is an economic thought construct. It claims no responsibility to act in the public (or people) interest in health or social welfare. Insofar as the system is drawn to respond to crises in these areas it is at the behest of the state – something its more extreme proponents have sought to shrink at every opportunity. No surprise then that it is a pared-down nation state that has been given point position for the response to the Covid-19 crisis. This was also the case in the 2008 financial crisis as the public purse came to the rescue of the banks.

While enormous wealth has been created for some under Neoliberalism, aggregate demand has been largely flat, along with wages for most workers. As Piketty has shown us, inequality has run to extremes (Piketty, 2019, Piketty, 2020). Globalisation, hypermobility, and international supply chains have provided a powerful means to squeeze workers and small business suppliers hard, while allocating greater risk to them in the face of shocks. While the Covid-19 virus was able to ride the hyper-mobilities of the distribution and people-movement systems to great success, the presence of those same systems has not provided enough incentive to encourage private finance to continue to invest in production. The late Neoliberal turn was toward share buy-back and asset accumulation, typified also by the situation where the airline EasyJet was asking for Government support, while paying its founder a £60 million dividend (McArthur, 2020).

The Neoliberal option looks exhausted as a strategy for balanced and sustainable growth (if it ever had this property). The recovery from 2008 is incomplete. Against this broad context, the ability of the private sector to help tackle the ravages of Covid-19 was always going to be very limited and it should surprise no one that the earliest responses from the airlines in particular is to ask for some form of state subsidy to keep their businesses intact.

Governments have had to be the ones to step up. But it is not going to be enough. Not just nation states, but also global consortia will be needed to cope with the scale of the crisis. The sheer scale of state fiscal activism required to restore any level of growth, employment and demand will inevitably raise fundamental questions about why we should return to the Neoliberal project in its previous form. This sees the state as the guarantor of its market freedoms but needs to call on it for bail out from time to time.

It will surely demand a re-think of the relative merits of public versus private value and of the state as an active player - not just in the virus recovery process but in the future of the economy as a whole. In a situation not dissimilar to the aftermath of World War 2 we may need to recover the lessons that Keynes taught us about the best balance between state and business interests.

1.5 Conclusion: seeking to gain from a world transformed

1.5.1 Taking the global ecosystem seriously

We will surely now have to adjust our collective mindset to grasp that we are living within a complex, multi-dimensional, dynamic, system with the capacity to produce unexpected events that can cascade out of control. There are some quick lessons here. We are much more vulnerable than we think, and we have just been caught out. 'Standing down the lookouts', as noted earlier, is clearly going to be recognised as a bad idea for watching transmissible health hazards in a hyperdynamic global system. Critically, the threat posed by global warming must at last get the attention it deserves.

1.5.2 Adopting a global sense of proportion and responsibility

When we move to start thinking more broadly about the lessons to be learned, it is important to start out with a sense of proportion. It is not just the developed countries (the subject of this paper) that are suffering. We have yet to see the toll elsewhere in the world and it may be even more devastating. While we are reacting against Covid-19, there are still over 400,000 deaths a year from malaria¹¹ and over 6,000 children a day die of water-borne diseases¹². Every three seconds a child somewhere in the world dies of starvation (Dehghan, 2019) and 820 million people suffer from food poverty (WHO, 2019). On top of that, health systems in Africa are seldom resilient enough to counter conventional diseases, let alone the potential

¹¹ <https://www.who.int/gho/malaria/epidemic/deaths/en/>

¹² https://www.unicef.org/media/media_21423.html

demographic catastrophe that may arise if mass contagion takes effect (Naidoo, 2020). As we think our way forward, where will global solidarity sit?

1.5.3 Re-asserting the essential value of the public realm

In the end, when the crisis of Covid-19 is behind us, we surely need to put aside the notion that we should simply go back and re-boot the economic system we had before. There will be powerful voices for this but there is too much wrong with it that we need to redesign. The virus event starkly demonstrates that economic policies that see the state stripped of the resources it needs to support the health and welfare of society are criminally short-sighted. Lockdowns tend to be deployed to stop contagion, but chiefly to form a political hedge against the capacity of the health services to cope with extreme demands.

A decade of funding restrictions from a government-imposed austerity on the health and care services can be read off in unnecessary deaths. A central feature of the debate after Covid-19 has to be a rethinking of the role of the state in a balanced and sustainable economy and society. We have discovered to our cost that the state is much more than a vehicle to support the free market economy and to occupy those spaces where market failure occurs.

1.5.4 Reviewing elements of the hypermobile world

There are areas where the opportunity will quickly arise to re-examine some aspects of how and why we chose to travel so much. Things will have already changed by the time the airlines are looking to start operations again. First, even with cheap fares, the aftermath of Covid-19 will leave very large numbers of people with neither the funds nor perhaps the inclination to go back to the scale of leisure travel they had become used to. Many of those who have filled the cheap air travel seats (the affluent elderly) may find their mobility restricted not just by the affordability of air fares but by health insurance costs as the industry calculates a new risk profile¹³.

The mobility profiles for business travel should also change. The benefits of the online video conferencing have been available for some time, but Covid-19 has provided a massive real time experiment that will undoubtedly change business behaviours. There will surely be a shake out of the airline industry going forward. The maps of reduced pollution and improved air quality we are currently seeing should surely have a role in how that plays out (while we are so focused on health). Change will come - but with pandemics and global warning in mind - there is a view to be taken on behalf of society as a whole.

1.5.5 Using the crisis to look at labour market conditions and inequalities

How labour markets will emerge from the Covid-19 pandemic is very uncertain, but this is a good time to have a serious discussion about what we want our labour market and work-life balance to be. In one short month some powerful lessons for this debate have come from the Covid-19 experience in the UK. The demand that was driving signs of skills shortages and falling unemployment has gone and will not be back for an indeterminate time. Post lockdown, unemployment may rise very rapidly. Those already at the bottom of the labour market and inactive will be pushed further down the queue.

For many of those in precarious employment (20-30 percent of the workforce), where the operation of the labour market has left them to take the risk with little resilience to survive, the outcome will be potentially catastrophic - with a threat to the social and political consensus. The UK Government Universal Credit

¹³ And, of course, UK nationals travelling to Europe will not even have the basic cover provided by the E111 card!

programme – already flawed and riddled with delays – will surely not cope as we emerge from the stop phase. Discussions of a Universal Basic Income have already begun to emerge (Shrimpsley, 2020).

1.5.6 Revising our sense of the value of public sector work

Something else that has been learned about the labour market is the perverseness of the way workers are judged and rewarded in the contemporary market economy. We have no difficulty at the moment in understanding the value to all of us of those nurses, allied health professionals and care assistants who are on the front line in this crisis. Their obvious value does not, however, reflect itself in the personal costs of their training, their wages, and their contract conditions.

This is a clear opportunity to re-evaluate the contribution of all those workers in and on the margins of the public sector - across the range from care home assistance, to adult and children's care, to cleaning and waste disposal and to school catering. Under a regime of cost saving privatisation, many of these people were assigned to the precarious labour market. They form the core of what has come to be called the Foundation Economy – those services we depend on locally for things we normally take for granted. The virus gives us a golden opportunity to reflect on why it is that their contributions to society and economy are valued so poorly in wage and contract terms.

1.6 Protecting our personal freedoms

The impact of the event on personal freedoms might need to be watched particularly closely. We have already speculated on how far the re-empowering of the nation state chimes in with some currently powerful right-wing discourses. Covid-19 has put a premium on monitoring people and tracking the progression of the disease. As already noted, those centralised states already with comprehensive systems for monitoring their citizens' lives have made good use of it.

For democratic societies, deploying surveillance more generally would be massively contentious - but, again, the crisis has served to fast-forward measures that would take years of debate and scrutiny before implementation. There is a risk that – necessary though it is now – the personal data we are having to collect, the movements that have to be monitored and the compliance that has to be logged and observed, will not fully evaporate once the crisis is over. How will we ensure that crisis-driven losses of individual freedom from Covid-19 are put 'back in the box' once the danger is over?

1.7 Going forward with imagination

We are faced with what everyone agrees is a situation unprecedented in recent history. We are naturally anxious. The situation is still evolving, and we are a long way from a resolution. We can be critical, and we can be questioning as an expression of our concern. But even a crisis of this magnitude is an opportunity to be creative and apply our collective expertise. We leave the last word to Indy Johar:

“One of the real structural challenges we face is the systematic loss of our intentional capacity to imagine futures – real alternative futures - not just tinkering with the world we find ourselves locked in to.” (Johar, 2018)

1.8 Chapter bibliography

- ABBOUD, L. & HODGSON, C. 2019. *Climate costs mount as retailers compete on fast delivery*. Financial Times (London). Published December 23. Available: <https://www.ft.com/content/2f7203dc-1b63-11ea-97df-cc63de1d73f4>. [Accessed December 24 2019].
- BBC. 2020. *Coronavirus: Peak District drone police criticised for 'lockdown shaming'*. British Broadcasting Corporation (BBC). Published March 27. Available: <https://www.bbc.co.uk/news/uk-england-derbyshire-52055201>. [Accessed March 27 2020].
- BRAUN, E., KAYALI, L. & TAMMA, P. 2020. *Coronavirus pandemic leaves gig economy workers exposed*. Politico.eu. Published March 19. Available: <https://www.politico.eu/article/coronavirus-pandemic-leaves-gig-economy-workers-exposed/>. [Accessed March 23 2020].
- BUTLER-JONES, D. 2020. *A forgotten lesson of SARS: The need for public health specialists and expertise*. Globe and Mail (Toronto). Published March 11. Available: <https://www.theglobeandmail.com/opinion/article-a-forgotten-lesson-of-sars-the-need-for-public-health-specialists-and/>. [Accessed March 23 2020].
- CELLAN-JONES, R. 2020. *Coronavirus: What if this had happened in 2005?* British Broadcasting Corporation (BBC). Published March 28. Available: <https://www.bbc.co.uk/news/technology-52052502>. [Accessed March 28 2020].
- CONWAY, R. & WALLACE-STEPHENS, F. 2019. *Rethinking the safety net for 21st century workers*. Royal Society for Arts. Published August 15. Available: <https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2019/08/economic-safety-net>. [Accessed January 5 2020].
- COPPOLA, G., WELCH, D. & QUEROLO, N. 2020. *Virus Erupts in U.S. Cities Where the Poor Have Few Defenses*. Bloomberg. Published March 28. Available: https://www.bloomberg.com/news/articles/2020-03-28/virus-erupts-in-poor-u-s-cities-whose-people-have-few-defenses?in_source=postr_story_0. [Accessed March 29 2020].
- DEGHAN, S. K. 2019. *Nearly half of all child deaths in Africa stem from hunger, study shows*. Guardian (UK). Published June 5. Available: <https://www.theguardian.com/global-development/2019/jun/05/nearly-half-of-all-child-deaths-in-africa-stem-from-hunger-study-shows> [Accessed February 3 2020].
- DESILVER, D. 2020. *Before the coronavirus, telework was an optional benefit, mostly for the affluent few*. Pew Research Center. Published March 20. Available: <https://www.pewresearch.org/fact-tank/2020/03/20/before-the-coronavirus-telework-was-an-optional-benefit-mostly-for-the-affluent-few/>. [Accessed March 22 2020].
- ECONOMIST. 2020. *Countries are using apps and data networks to keep tabs on the pandemic. And also, in the process, their citizens*. Economist. Published March 26. Available: <https://www.economist.com/briefing/2020/03/26/countries-are-using-apps-and-data-networks-to-keep-tabs-on-the-pandemic>. [Accessed March 28 2020].
- ESTAT. 2020a. *168 million arrivals by non-EU tourists in 2018*. Eurostat. Published March 23. Available: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200323-1?inheritRedirect=true&redirect=%2Feurostat%2F>. [Accessed March 24 2020].
- ESTAT. 2020b. *Commuting between regions*. Eurostat. Published March 24. Available: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200324-1?inheritRedirect=true&redirect=%2Feurostat%2F>. [Accessed March 24 2020].

- HARARI, Y. N. 2020. *Yuval Noah Harari: the world after coronavirus*. Financial Times (London). Published March 20. Available: <https://www.ft.com/content/19d90308-6858-11ea-a3c9-1fe6fedcca75>. [Accessed March 21 2020].
- HEYMANN, D. L. & RODIER, G. 2004. *SARS: Lessons from a new disease*. National Center for Biotechnology Information (USA). Available: <https://www.ncbi.nlm.nih.gov/books/NBK92444/>. [Accessed March 23 2020].
- IATA. 2019. *WATS World Air Transport Statistics 2019*. International Air Transport Association. Available: <https://www.iata.org/contentassets/a686ff624550453e8bf0c9b3f7f0ab26/wats-2019-mediakit.pdf>. [Accessed March 23 2020].
- ILYUSHINA, M. 2020. *How Russia is using authoritarian tech to curb coronavirus*. CNN. Published March 29. Available: <https://www.bbc.co.uk/news/world-europe-52076293>. [Accessed March 30 2020].
- ISLAM, F. 2020. *Coronavirus: Self-employed bailout 'problematic'*. British Broadcasting Corporation (BBC). Published March 24. Available: <https://www.bbc.co.uk/news/business-52021299>. [Accessed March 24 2020].
- JOHAR, I. 2018. *Moonshots & Mission Capital*. Dark Matter Laboratories. Published February 25. Available: <https://provocations.darkmatterlabs.org/moonshots-mission-capital-95f03a2c6de6>. [Accessed February 6 2020].
- KELION, L. 2020a. *Coronavirus: NHS turns to big tech to tackle Covid-19 hot spots*. British Broadcasting Corporation (BBC). Published March 28. Available: <https://www.bbc.co.uk/news/technology-52079287>. [Accessed March 29 2020].
- KELION, L. 2020b. *Coronavirus: UK considers virus-tracing app to ease lockdown*. British Broadcasting Corporation (BBC). Published March 31. Available: <https://www.bbc.co.uk/news/technology-52095331>. [Accessed March 31 2020].
- LLOYD, P. E. 2019. *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Peter Lloyd Associates. Published December. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed February 3 2020].
- LLOYD, P. E. 2020. *Facing the Digital Transformation: Emerging Labour and Skills Shortages*. Peter Lloyd Associates. Published February. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed March 3 2020].
- LOCKWOOD, S. 2020. *Coronavirus: Italy becoming impatient with lockdown - and social unrest is brewing*. Sky.com. Published March 29. Available: <https://news.sky.com/story/coronavirus-italy-becoming-impatient-with-lockdown-and-social-unrest-is-brewing-11965122>. [Accessed March 30 2020].
- MCARTHUR, T. 2020. *EasyJet pays founder £60m while asking for UK state aid to deal with coronavirus crisis*. Yahoo. Published March 21. Available: <https://uk.finance.yahoo.com/news/easy-jet-pays-founder-60-m-while-asking-for-uk-state-aid-to-deal-with-coronavirus-crisis-102451905.html>. [Accessed March 25 2020].
- MOZUR, P., ZHONG, R. & KROLIK, A. 2020. *In Coronavirus Fight, China Gives Citizens a Color Code, With Red Flags*. New York Times. Published March 1. Available: <https://www.nytimes.com/2020/03/01/business/china-coronavirus-surveillance.html>. [Accessed March 3 2020].
- MURGIA, M. & BEIOLEY, K. 2019. *UK to create regulator to police big tech companies*. Financial Times (London). Published December 18. Available: <https://www.ft.com/content/67c2129a-2199-11ea-92da-f0c92e957a96>. [Accessed December 19 2019].

- NAIDOO, P. 2020. *Africa Is Two to Three Weeks Away From Height of Virus Storm*. Bloomberg. Published March 29. Available: <https://www.bloomberg.com/news/articles/2020-03-29/africa-is-two-to-three-weeks-away-from-height-of-virus-storm>. [Accessed March 29 2020].
- PIKETTY, T. 2019. *Capital in the twenty-first century*. Cambridge, MA: Harvard University Press.
- PIKETTY, T. 2020. *Capital and ideology*. Cambridge, MA: Harvard University Press.
- RACHMAN, G. 2020. *Nationalism is a side effect of coronavirus*. Financial Times (London). Published March 23. Available: <https://www.ft.com/content/644fd920-6cea-11ea-9bca-bf503995cd6f>. [Accessed March 24 2020].
- SAMPLE, I. 2020. *British exceptionalism undermined pandemic preparedness, MPs told*. Guardian (UK). Published December 2. Available: <https://www.theguardian.com/politics/2020/dec/02/british-exceptionalism-undermined-pandemic-preparedness-mps-told>. [Accessed December 4 2020].
- SAVAGE, M. 2020. *Lockdown, what lockdown? Sweden's unusual response to coronavirus*. British Broadcasting Corporation (BBC). Published March 29. Available: <https://www.bbc.co.uk/news/world-europe-52076293>. [Accessed March 29 2020].
- SHRIMSLEY, R. 2020. *Boris Johnson's agenda is over — a new politics will emerge*. Financial Times (London). Published March 23. Available: <https://www.ft.com/content/21672cd6-6ce4-11ea-9bca-bf503995cd6f>. [Accessed March 31 2020].
- WARF, B. 2017. *Time-Space Compression*. Oxford Bibliographies. Published September 21. Available: <https://www.oxfordbibliographies.com/view/document/obo-9780199874002/obo-9780199874002-0025.xml>. [Accessed January 2 2020].
- WHO. 2019. *World hunger is still not going down after three years and obesity is still growing – UN report*. World Health Organization. Published July 15. Available: <https://www.who.int/news/item/15-07-2019-world-hunger-is-still-not-going-down-after-three-years-and-obesity-is-still-growing-un-report>. [Accessed January 6 2020].
- ZUBOFF, S. 2020. *You Are Now Remotely Controlled*. New York Times. Published January 24. Available: <https://www.nytimes.com/2020/01/24/opinion/surveillance-capitalism.html>. [Accessed January 25 2020].

2.0 The Virus and the Lockdown

This paper was released on **19 April 2020**.

The Pandemic Timeline 2 April – 19 April 2020

3 April – The first NHS Nightingale Hospital London opens in London.

10 April – The Deputy Chief Medical Officer for England, Jonathan Van-Tam, warns that while the lockdown is having a positive impact on cases the situation is still “dangerous”.

10 April – from this date the Care Quality Commission (CQC) for England required care homes to provide daily information about deaths, and whether they were related to Covid-19. Data will now be published within weekly reports from the Office for National Statistics.

11 April – This was the peak for people hospitalised in London. Infections are still increasing, though the rate of increase is reducing.

15 April – Close relatives of people who are dying in hospitals are now able to see them. New initiatives are launched to provide PPE to staff, and testing of staff and residents in care homes.

16 April – The NHS Nightingale Hospital Birmingham is officially opened.

17 April – Testing is to be extended to a broader range of public service employees. The Office for National Statistics reports that the deaths for the recent week are 207% of the average for the same week in the previous five years.

Source: Derived from Wikipedia¹⁴

2.1 Looking back at Paper 2

By the time we came to write the second paper in our series, the crisis of Covid-19 was upon us. The essence of Paper 2 was lockdown, how long would it go on and what would be the issues arising when it was lifted. Beyond the emergency stage, this was the first point at which the wider governance and management of the pandemic would come into play. It would not just be about the virus and its progression; it would need to take on board the economic, social and psychological effects of lockdown on the population at large. It would require a greater understanding not just of the epidemiology, but the full array of effects, direct and indirect, of the losses of income, of jobs, of education and of essential social connections. Lockdown had been a simple lever to pull from the centre. Leaving lockdown was going to involve an array of nuanced decisions across a complex landscape – a management process would be needed with the scope and texture to steer people to and through the next phase.

The story in the papers from this point is one more specifically about England. Under the terms of devolution, the formal allocation of public health powers was to the three devolved administrations of the

¹⁴ https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

UK – Wales, Scotland, and Northern Ireland. This was to define the data and policy material we easily had at our disposal to the English case. Devolution was destined to play an increasingly strong policy management role later in the process, as the regions began to assert their own independence. We were at a point in April where the full extent of what the pandemic and lockdown was going to bring in its wake was beginning to be realised, and government across the board was struggling to find a way to respond..

- The mantra of the time was “**stay home, save the NHS, save lives**” and the three podiums in Whitehall became the primary communication device for presenting messages to the nation. (*This modus operandi has not changed despite evidence of its falling efficacy*).
- At this stage, the nation had come to an **abrupt halt**. Travel nationally and internationally evaporated. In response, the curve of cases flattened and declined just as the epidemiological models had projected (*measures to find safe travel corridors and procedures have been deployed on and off since to try to ease the ban, but we now are back to square one on the arrival of the new variant virus*).
- “**Social distancing**” was bedded in as the basic principle for human social interaction (*with rolling debates still going on about its precise definition, about the role and efficiency of masks and about the closure or restriction of venues where difficulties arise for it to be observed*).
- There was a rush to build **Nightingale hospitals**. This turned out, at least up to this point, not to be a good investment (*not least because sufficient thought at the time did not go into how they were going to be staffed*).
- There was a still ongoing scramble to procure **PPE (Personal Protective Equipment)** with mounting news stories about shortfalls in the hospitals. (*disturbing details are only just now emerging about a contracting process that operated well outside the rules of standard government procurement and was far from efficient*).
- This was the point at which the government choice to place massive contracts for track and trace to **private sector contractors** like Serco and Deloitte moved into action (*9 months on and £billions spent and the system is still proving to be inadequate - finding only around 50% of possible contacts where 70-80% is needed for full effectiveness*).
- It was at this point that the implications of the key choices of **policy governance** in England began to become more critical to the subsequent pathway for managing the pandemic.
- Government had chosen to adopt a fully **centralised management approach** alongside its chosen contractors from the private sector and its nominated appointees to key strategic posts.
- In choosing the private contractor route, the government had turned its face against **Public Health England and its local Directors of Public Health** in Local Authorities across the country - despite their mandate to deal with infectious disease transmission. (*Only now, 9 months on is their value being recognised for local intervention*).
- The government had only been in power for months following a successful election campaign with a single policy focus; “*get Brexit done*”. Significant **opportunity costs** for the management of the pandemic were going to arise from the need to deploy considerable central resources to time-limited Brexit negotiations.
- Emergency powers, and the need for Parliament to observe distancing rules, meant that normal practice for **policy and legislative scrutiny** was widely suspended, removing checks and balances.

- Government policy was framed as: “**following the science**”. Members of SAGE were put forward on the podia to speak directly to the nation about what the epidemiological models required the policymakers and the people to do¹⁵.
- Looking back, we can see that the **interface between “the science” and the policy process** was problematic. The complexity and confidence limits coming from the science were often “lost in translation” when it came to messaging and central policy.
- There was a danger at this point that the government could fall prey to a combination of **group think and path dependency** that would make the policy process insufficiently flexible to deal both with the crisis in the short term and the long run consequences to follow.
- Over time, the chosen pathway tended to rule out a more **multi-faceted, multi-level and more open approach** - even when all the evidence was pointing to the need to engage with other levels of governance - and particularly the local one.
- Understanding the context also seemed to be lost. The UK had achieved the dubious status of having the one of the **highest levels of inequality** among the advanced nations. Case rates and poor health and economic outcomes would be higher among those groups and in those places that already suffered from extreme health and social inequalities.
- School and college closures in lockdown brought to the fore the special circumstances to be faced by young people in the pandemic – not so much from the disease itself but the disruption of their lives at a sensitive stage. Understanding the **wider context beyond the epidemiology and the economy** was vital for effective management.
- The one unequivocal success of the time was that the Chancellor acted as early as March 20th to bring forward his Coronavirus **Job Retention Scheme**. This supported 80 percent of the wages of workers laid off up to a maximum of £2500 a month and brought a new word into the policy lexicon – furlough¹⁶.

In early April we still awaited data to show detailed spatial patterns of cases - related to health inequality and to the indices of multiple deprivation. We were, however, setting a flag in advance of the data that there was a great deal more going on in the incidence of the pandemic than cases and outcomes by age and gender, especially in a country that already had extreme levels of social and spatial inequality before March 2020.

PAPER TWO ‘THE VIRUS AND THE LOCKDOWN’ FOLLOWS

2.2 Locking Down

2.2.1 “Stay home, save the NHS, save lives”

Late in March 2020, and in response to the spread of the COVID-19 virus as a global pandemic, the UK was placed in a lockdown. The ever-repeated mantra of the UK lockdown was to “*stay home; save the*

¹⁵ We learned later, however, that there was a tendency to hold back on timings even when the costs of doing so had been set out; the story of the two-week initial delay in locking down and its consequences is now on the record

¹⁶ <https://www.gov.uk/government/speeches/the-chancellor-rishi-sunak-provides-an-updated-statement-on-coronavirus>

NHS; save lives". By avoiding the National Health Service (NHS) becoming overwhelmed by a sudden peak of demand, the aim has been to 'flatten the curve' and to hope that deaths - forecast by some models to be as high as half a million (if no action was taken) and 250,000 (if only vulnerable people were isolated) - would be reduced to 20,000 (Triggle, 2020).

Lockdown requires people to contribute by self-isolation and social distancing. In the enforcement of this, the Government passed legislation giving itself powers that months before would have been criticised as those of a police state. Decisions were taken to halt activities such as face-to-face education, non-essential retail and business activities (unless they could be undertaken via the internet), socialisation, routine travel, routine healthcare and planned non-urgent operations. The speed at which the lockdown was enforced meant that overnight what had been the previous 'normal' was over – things would probably never be the same again.

The first few weeks of lockdown mainly focused on enacting the process, such as finding ways to continue some schooling via the internet, ways to keep essential foodstuffs supply chains operational, new ways of buying food (social distancing when shopping and only if it could not be undertaken via ecommerce) and defining what was essential (clothes shops were not, but off-licences were).

In parallel with lockdown, the government moved to increase NHS capacity. This involved dramatic levels of investment such as the thousands of beds created in temporary Nightingale Hospitals (NHS, 2020), immediately releasing the NHS from its historic "overspending" with "*£13.4 billion debt that will be written off to support the NHS in its response to coronavirus (COVID-19) and ensure long-term financial sustainability*"¹⁷, and sending a strong message for citizens not to contact the emergency health lines unless necessary. Not everything, however, has led to a rational outcome, and there is now concern that "*close to half the beds in some English hospitals are lying empty in a sign that people may be failing to seek help for other life-threatening conditions during the coronavirus pandemic*" (Neville et al., 2020).

A significant conditioning variable in all this is that coronavirus hit the UK at the end of a decade of cost-saving measures that reduced health service capacity to levels that were challenging even for 'normal' service. Earlier recommendations for the NHS to have some spare capacity against risk were clearly set out by the NHS *Institute for Innovation and Improvement* in 2005 and reaffirmed in 2017:

"plan average capacity at 80–85% of the normal fluctuation in demand. This ensures that queues and waiting lists rarely build up and that there is the flexibility to cope with unexpected demand instantly." (NHS, 2017)

Instead, a plethora of real-life documentaries of hospitals in crisis showed that 100% (the ceiling value) seems more likely to have been the actual norm. Germany, by contrast, has been criticised in the past for an 'oversupply' of hospitals, but this is now being seen as an unintended benefit: "*A recent survey by the OECD found that before the crisis Germany had 33.9 intensive care beds per 100,000 people, compared with 9.7 in Spain and 8.6 in Italy*" (Chazan, 2020). If action had been taken in line with the recommendation, we would have still been facing lockdown – but perhaps of a different scale/duration. The need for what the government claims is a 'Herculean' effort to source basic PPE (Personal Protective Equipment - for example, see "*The NHS workers wearing bin bags as protection*" (Press, 2020)) would also have been less dramatic. Analysis of official financial data suggests £325m was wiped off the value of the Department

¹⁷ Having bludgeoned the NHS about this debt during the years of austerity! DHSC. 2020. *NHS debt write-off: regional breakdown* Department of Health and Social Care (UK). Published April 9. Available: <https://www.gov.uk/government/publications/nhs-debt-write-off-regional-breakdown>. [Accessed April 10 2020].

of Health and Social Care (DHSC) emergency stockpile, reducing it from £831m in 2013 under the Conservative-led coalition government to £506m by March last year. (Davies et al., 2020)

There is a lesson here. The financialisation of a vital public service asset prioritised cost-savings over service delivery (hence the progressively extended waiting times in emergency departments (KINGSFUND, 2020) and it ignored the recommendations of sensible risk management. It critically weakened the ability of the health system to respond to COVID-19. Not just the NHS, but health and social care generally and the entire social welfare system has been presented with the most severe challenge in their history after a decade when the resource needed was sacrificed on the altar of a centrally imposed policy of austerity.

2.2.2 Thinking about exiting from lockdown

At the time lockdown was enforced, there was no plan in place for an exit from the process. This is not surprising, since the path of the pandemic, the death rates (age-specific, health-specific, or spatially specific in crowded cities) was unknown. Since then, there have been many more critical indicators to inform government, such as the trend in infections and deaths and front-line information on whether the National Health Service (NHS) can actually cope with the hospitalisation demands of seriously ill patients. This has not been a trouble-free process¹⁸.

After three weeks of the first lockdown phase – where the contract with the population was to act together to ‘flatten the curve’ of contagion, the government line was that is too early to think about lifting lockdown, and a further three weeks were specified (16th April). The new contract is that we should accept it is too early to release the constraints and that a second wave would be likely if people do not comply. A YouGov poll after the announcement confirmed that virtually the entire population agreed that it was the right thing to do¹⁹.

The process of planning to exit from lockdown, for politicians, must be almost as terrifying as the virus itself. Lockdown was a reaction to extraordinary external circumstances beyond the control of the nation state. The unlocking process, by contrast, is where the government has to make decisions about acting - not just about contagion, NHS pressures and deaths - but about the economy, the public finances, wider health and social care issues and the personal and social costs to people of the loss of their normal freedoms. There would be enormous political implications if the process should turn out to be a disaster.

The key strategic questions for government are, of course, when, and how to begin to lift lockdown, and in what order to do it? In respect of the first we are still waiting for clear evidence of the flattening of the curve; but Ministers are already actively managing expectations toward the longer term. On 16th April, for example, Health Minister Nadine Dorries demanded that: “*Journalists should stop asking about an ‘exit strategy.’ There is only one way we can ‘exit’ full lockdown and that is when we have a vaccine*” (Rayner, 2020). Questions about a strategy for how to ease the lockdown seem for the moment to be in abeyance as far as government is concerned – just don’t ask about an exit strategy.

Regardless of when it takes place, this is exactly the time to be thinking about how to go about lifting the policy. Not least, there is need for a careful examination of where the damage of lockdown is at its most extreme and how its duration will produce pressure points demanding a response. As this paper goes on to show, the social and spatial impact of lockdown is and will be hugely variable. We are not ‘all in this together’. Some people will be only marginally affected but some will be brought to the *margins of survival*.

¹⁸ It took until the weekend of April 12 for the media to be sensitised to the high death rates in care homes (“*the government confirmed there had been virus outbreaks at more than 2,000 care homes in England*”¹⁸), and for official death statistics to show clearly that COVID-19 was the cause of death. Up to that point, the government had only been counting deaths recorded in hospitals.

¹⁹ <https://yougov.co.uk/topics/politics/survey-results/daily/2020/04/16/73305/1>

Even if lockdown has to go on for epidemiological reasons, it is surely right to bring into the debate wider considerations about its impact – not just about epidemiology or even the economy and the public finances. The position here is that we should take the trouble to find out if there is the threat of a social ‘breaking point’ for a significant proportion of the population if the lockdown policy goes on too long.

Why this is important is because lockdown in the UK is being projected onto a highly unequal set of base conditions. The starting point for the pandemic event was, for many, *already precarious* with little in the way of resilience to absorb any loss of income however small. For those who can live through lockdown still on something like a full wage and still paying the bills, there may be an absorbable effect. For those who have no job, no savings, rent property and have to travel to get to work, lockdown will be traumatic and life changing. The Chancellor has moved quickly to put in place a safety net, and this is to be applauded. But, from the starting point we had when COVID-19 hit, there is a dangerously high level of vulnerability for a substantial share of the population should we be faced with a long-duration lockdown.

The concern is not just about income and indebtedness. There is concern that the sheer weight and uncertainty of the event itself – difficult for all but especially for those with ‘money troubles’ - will see a rise in stress disorders and wider mental health problems (Haynes, 2020, Holmes et al., 2020), putting yet more pressure on over-stretched services. Concerns are already being raised about the situation of children. A survey of young people aged up to 25 and with mental health issues found “26% said they were unable to access mental health support; peer support groups and face-to-face services have been cancelled, and support by phone or online can be challenging for some young people” (Lee, 2020).

School and college closures for a long time disrupting the entire pattern of home life can fracture family relations. We hear already of rising domestic violence and pressure on refuge facilities (Townsend, 2020, Grierson, 2020). While the temptation is to look away, ‘do the time’ and hope for the best, it is surely wrong not to be thinking about, and, asking questions about how factors such as these will play into a strategy for lifting lockdown. In what follows we explore some of the issues.

2.3 A Blunt Instrument with Differential Impact

2.3.1 Closing the schools and colleges

One of the most dramatic aspects of lockdown has been the suspension of all conventional place-based education from kindergartens to universities. Educators worldwide have considerable concerns about the impact of the pandemic on a loss of learning²⁰. Some countries are moving already to re-open their schools. Denmark reopened kindergartens and schools on April 15 (Gargiulo, 2020), and children in Norway will also be returning to kindergartens (Smith-Spark, 2020). The debate on re-opening schools as part of a strategy for ending the lockdown is, however, only just beginning to emerge in the UK, for example with the new leader of the Opposition, Sir Keir Starmer (Mason, 2020), prompting the Government to communicate a strategy and nurseries in Wales warning that up to 90% of them are in financial distress and that many may not be able to reopen (Lewis, 2020).

Lockdown has impacted massively on young people. For those whose examinations have been cancelled, their life goals have suddenly been rendered uncertain. For those for whom the social life outside the home is ‘life’, particularly the older teenagers, the order not to leave the house will be extremely limiting. This is much more than a debate about shutting down the education system itself with its longer-term effects on children and society. Going to school or college and the behaviours and social relations that surround it is

²⁰ Global concern from educators was evidenced in a two-day Salzburg Global online Seminar “*Education Disrupted, Education Reimagined*” April 15-16, with over 5,000 participants were registered as participants.

a fundamental pillar of a nation's daily life. Home and family life and relations are strongly pivoted around children and young people. Even short-term disruption can have significant impact..

In the UK context, all these aspects of nationwide educational lockdown are being projected onto a *differential landscape of inequality*. Restricting children of all ages to the confines of their home potentially for months will have a strong impact on them but also on their parents and guardians in the pressure-cooker of the home space. But this will be made significantly worse by situations of crowding (Wall, 2020) and deprivation and where the struggle to put food on the table demands that parents have to find work. In October 2019 before the pandemic hit, the Children's Commissioner of England was already telling us that:

*"There are around **4 million children in the UK growing up in poverty**. And those poverty rates have risen for every type of working family – lone-parent or couple families, families with full and part-time employment and families with different numbers of adults in work". (Longfield, 2019)*

Lockdown will already be thrusting yet more children into poverty as their families struggle²¹. Free school meals normally provide an escape valve for children in this situation, giving them at least one good meal a day. Set this against a report on April 15 that *"Many families of children eligible for free school meals are having to wait up to a week for supermarket vouchers, despite an upgrade to the website responsible for delivering them"* (Burns, 2020). School also aims to place children in a secure and positive environment. Locking these children in and away from the support the school can give them has huge potential implications, both short and long term, for their mental and physical health (Ramchandani, 2020). On top of all this there will be significant and as yet unknown impacts from the disengagement of a whole cohort of children for what might be as long as one third of the school year. This is a global concern, for example articulated in New Zealand: (Gerritsen, 2020).

This differential experience arising from school and college closure will not only be highly variable from household to household, but it will map differentially across the occupational class divide, across differential family composition, cultural and ethnic group and across place and space. The Social Mobility Foundation observes that: *"Polling shows 40 per cent of children on low incomes do not have a quiet place to study. Better-off families are three times as likely to use private tutors during school shut-down"* (SMF, 2020). The home school learning option will be available only to a part of the population. Both children and families need to have some voice in the wider debate about the effects of lockdown and the strategy for lifting it. For however long the policy lasts, we should also be hearing much more about creative measures for children to be supported – especially those in deprived homes and neighbourhoods.

2.3.2 Job and income losses

By income group and occupation, the effects of lockdown vary enormously. Around 50 percent of those in the higher income brackets can work from home (ONS, 2020) as compared with 10 percent of those on low incomes. It is clear where the biggest hit of lockdown will land, particularly on those lower income earners who cannot work from home, Beyond the core of the defined "essential services" they are the ones most affected by the shutdown of certain sectors (cafes and restaurants and the high streets generally) and most exposed to the health risks of delivering services in others (food retail and home care). Many have either fallen through the net of the support schemes or are waiting for the benefit system to respond.

²¹ Government has made some limited provision for this in its current planning – but where is a fast acceleration in the numbers of children falling into poverty (1.4 million people were forced onto Universal Credit claims just in a four-week period) much more needs to be done.

“More than 3 million people in Britain are going hungry because of the coronavirus crisis, according to new research showing that stark drops in income have pushed many families into poverty during the lockdown.” (Staton and Evans, 2020)

Those at the top of the salaries/savings ladder, still remaining fully employed, or being ‘furloughed’ (and receiving 80% of their wage/salary), may well be able to absorb the impact in the short term. Many of them will, however, be seriously concerned about what happens when things start up again and when the state subsidy drops out – again a subject for some early strategic thinking. The Office for Budget Responsibility report²² of 14th April will offer them little comfort with a forecast of a dramatic fall in output and a massive rise in unemployment over the next two quarters. A recent report suggests that we may be facing the loss of 6.5 million jobs (Doward, 2020). Corporate planners are no doubt already being called upon to advise their Boards of Directors about the likely scale of business when lockdown is lifted and how they should adjust their staffing profiles to the new conditions. It is to be hoped that somewhere in government work is already being commissioned to recover the lessons from programmes that helped to cope with high unemployment in the late 1970s and early 1980s²³.

The sudden shift from job retention to redundancy for many people whose jobs were assured at the start of lockdown will see the damage from the pandemic impacting on people whose ex ante expectations allowed them to take on significant household and mortgage debt. The Financial Conduct Authority (FCA) moved on 17th April to help borrowers who are experiencing money problems asking motor finance firms to grant a three-month freeze and firms specialising in rent-to-own, buy-now-pay-later and pawnbroking loans to delay repayments (BBC, 2020).

The financial resilience of this group is likely to be extremely sensitive to the duration of lockdown. The Chancellor of the Exchequer will then have a particularly difficult decision to make about the post-lockdown transition, and about how far into the future the job retention subsidy can reasonably last.

For those on lower pay levels, the effect of the Job Retention Scheme will be variable as a share of their overall normal earnings down the scale. How it impacts them – as for their better paid colleagues – will depend on their level of savings and degree of indebtedness (financial resilience). To the government’s credit, the regulation does allow for people on part time, agency, flexible and zero hours contracts to benefit from the scheme. However, this is where even a 20% income drop will tend to hurt most. The same will be true of some, if not all, sole traders for whom there is also government support – but they may have to pay their bills for as much as two months before the cash flows in. Many sole traders who qualify will be seeking support from Universal Credit in the interim.

Those normally at the very bottom of the labour market will have been much less able to build up financial resilience and may quickly descend into poverty. Younger workers, those leaving education and entering the labour market, have been most likely to lose their jobs in this crisis. For the young starting out there will be a high price to pay - thrusting many of them into a situation where they need (if they can) to return to the family home. After lockdown they will be seeking to find work against a rapid rise in general unemployment. Yet again, lessons of the 1980s about how to absorb the young into work or additional skills and learning will need to be re-examined against the current situation.

Research carried out by Kings College and Ipsos Mori (April 9) noted that while the policy of lockdown was broadly accepted, there were clear discriminatory impacts:

²² <https://obr.uk/coronavirus-reference-scenario/>

²³ The Active Labour Market Policies (ALMP) of the EU – especially following the economic shock of the collapse of East Germany might offer some creative policy ideas. (See <http://www.oecd.org/employment/activation.htm>)

“Half of those surveyed (49%) said they had felt more anxious and depressed than normal. Over a third (38%) said they were having trouble sleeping and more than a fifth of people (22%) said they were already facing significant money problems or were almost certain to do so in the near future. Among workers, 16% said they had either already lost their job or were very likely to do so in the near future.” (Easton, 2020)

In Chapter 1 (the first paper) we showed that zero-hour contracts, short-time working, and non-standard forms of labour contracting were fast becoming the norm for *up to a third* of those in work in England. So, the most damaging short-term impact of the lockdown measures will affect a considerable proportion of the employed workforce. The numbers of self-employed (many of them after severance from their employers post-2008) will boost the proportion in difficult circumstances. The self-employed have been much less well treated in the UK in response to the economic shutdown (Islam, 2020). The higher earners in the “furloughed” group may not be faced with immediate problems but anxiety about their future prospects will be widespread. It is absolutely clear that a *very substantial share of the working population* is more vulnerable than ever before to shocks of any kind (Braun et al., 2020). More than this since average wages have been flat since 2008 there has been little opportunity for most people to build up any substantial form of financial resilience²⁴.

Consequently, and despite the Chancellor’s significant and welcome efforts, many will find themselves in serious difficulties very quickly. Not least this is because large numbers were in a precarious situation before the virus hit.

“30 percent of workers don’t feel like they earn enough to maintain a decent standard of living (up from 26 percent in 2017). Almost one in four workers sometimes have trouble meeting their basic living costs because of income volatility (24 percent, up from 19 percent in 2017). Moreover, a significant number of workers lack financial resilience – 36 percent would struggle to pay an unexpected bill of £100; 59% would struggle to pay an unexpected bill of £500. A further 45 percent don’t expect to have enough in savings and pensions to maintain a decent living of living in retirement. While 32 percent are concerned about their levels of debt” (Wallace Stevens, RSA 2018²⁵)

No doubt these figures quoted above from 2018 considerably underestimate the current position.

2.3.3 Social order

As we have suggested, loss of income on lockdown has the potential to take a substantial part of the population below the threshold of survival very quickly - this was reflected in the high number of new universal benefit claims we noted earlier. Week by week the position of these people will worsen against a situation where savings and borrowing will not cover bills. There were reports of more extreme effects of this in Italy, where people in the south of the country – the poorest region – were already finding themselves unable to put food on the table for their children. This created an opportunity for organised crime groups to become distributors of food (Tondo, 2020). There were also reports of mass refusals to pay at supermarkets and some looting (Giuffrida and Tondo, 2020).

²⁴ “15% of Brits have no savings at all and one in three Brits has less than £1,500 in savings”.

<https://www.finder.com/uk/saving-statistics>

²⁵ An updated version is available: CONWAY, R. & WALLACE-STEPHENS, F. 2019. *Rethinking the safety net for 21st century workers*. Royal Society for Arts. Published August 15. Available:

<https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2019/08/economic-safety-net>. [Accessed January 5 2020].

The longer the lockdown lasts there is a risk that these sorts of manifestations of anger and despair could appear in the UK as “*stark drops in income have pushed many families into poverty during the lockdown*” (Staton and Evans, 2020). So, lockdown, while effective at minimising contagion, has a social as well as economic breaking point. There comes a stage at which it is not socially - as well as economically - sustainable and in democratic societies the sorts of controlling measures possible in China are not available. The willingness of people to trust government and accede to the regulations is critical as is the sensitivity with which the policies are enforced by the police.

Poverty and social stress must, therefore, be factors in the development of a strategy to end the lockdown phase. It is not just a matter of health, economy and the public finances. It is also about avoiding the most extreme manifestations of the lockdown on those segments of society that are already disadvantaged. While there is, as yet, no sign of significant unrest in the UK three weeks into lockdown, it would be unwise to be too complacent that it could not happen here²⁶.

2.4 Geography: Placing the Pressure Points

2.4.1 The geography of contagion

There is, of course, a geography to the pandemic. The centres of contagion are the core cities – London, Birmingham, Manchester, Liverpool, Leeds, Newcastle, Cardiff and Belfast. Outside this urbanised core, the case numbers fall off in concert with the density of population and the intensity of and propensity for inter-person interaction. The incidence of new cases flows spatially over time, but in uncertain ways. As there were early indications around April 14 that London’s case rates were slowing, rates were rising in Newcastle and the North East. This shows the difficulty of predicting regional demand for hospital beds. The Nightingale Hospital in Docklands had spare capacity over Easter, with reports that only 19 out of the 4,000 beds were occupied (Wells, 2020b).

Against this variable map of the state of ongoing contagion, the geographical frame for the policy of lockdown is spatially *uniform*. Every part of the UK is addressed with the same legal force. The reasons for this are clear and the rationale for the policy is generally accepted. However, as previous sections of the paper have set out, the economic and social reality on the ground onto which both variable pandemic and uniform lockdown are projected is complex and intricately differentiated. From place to place – regions; localities; neighbourhoods – the traumatic effects of COVID-19 and lockdown in combination are experienced in vastly different ways with different levels of disruption.

2.4.2 The experience of lockdown in deprived places

The spaces and places of the UK, like the individuals and groups that work and live in them, were already differentially positioned to respond before the pandemic and lockdown hit. Some were well off and some were poor. Some had low population densities; some high. Some were well endowed with private gardens and green spaces; some were not. Some were private car dominated, while some relied on public transport (here those who rely totally on public transport are - along with those who drive buses or staff trains - much

²⁶ The United Nations is worried about this risk on a global scale: MILLS, J. 2020. *World peace at risk as coronavirus could bring social unrest and violence*. Metro News. Published April 10. Available: <https://metro.co.uk/2020/04/10/world-peace-risk-coronavirus-bring-social-unrest-violence-12537515/>. [Accessed April 11 2020].

more disadvantaged and further exposed to the virus than those who can get into their own car and drive to a shop or go to work²⁷).

A uniform policy of lockdown is playing out variably across all this. Locality, place and community with all its intricate differentiation is where the virus and lockdown effects are being lived out daily. A significant concern must be for the most deprived places - against a background context where they were already “left behind” or on the margins. Currently silent, these places will have to be woken up again as lockdown is lifted and the prospects going forward will be even worse than they were before.

Lockdown is, then, being deployed onto pre-existing *mosaic of spatial inequality*. Professor Gabriel Scally, president of epidemiology at the Royal Society of Medicine, expresses this concern, declaring that the virus spreads through overcrowded housing because it passed easily between people living in close proximity and sharing facilities such as toilets and kitchens: “*Houses in multiple occupation must be in the same category as care homes because of the sheer press of people,*” he said. “*I have no doubt that these kinds of overcrowded conditions are tremendously potent in spreading the virus*” (Wall, 2020).

It is not hard to imagine for places like this what the outfall of lockdown and the recession that follows it might be. They are, as we have just heard, the places that were likely to have suffered the worst effects of the pandemic. They are places where there is likely to be a preponderance of those BAME groups where it has recently been noticed that infection rates for COVID-19 are far higher than the average expectation. They are the places where resilience (to a wide variety of challenges) is likely to be at its lowest.

Perhaps in the major cities, lifting the lockdown might well see a relatively quick response. The concern is, however, that for many of the most marginal among the older industrial towns and the non-city (rural, small town and seaside resort) deprived places a significant part of what was lost will not come back. It is interesting to look back to a Guardian op ed written by Chakraborty only seven months ago about the state of these deprived places:

“Public parks are disappearing. Playgrounds are being sold off. High streets are fast turning to desert. These trends are national, but their greatest force is felt in the poorest towns and suburbs, the most remote parts of the countryside, where there isn’t the footfall to lure in the businesses or household wealth to save the local boozer.” (Chakraborty, 2019)

An earlier paper also written before the pandemic added the following about the prospects they already faced:

“The income multipliers to sustain businesses and jobs in the local shopping street and service trades will respond to the financial pressures that come from flat wages and indebtedness. Added to the effects of a decade of UK, government-imposed, austerity on the Local Authorities and Public Services generally, these private sector trends have produced a double-sided negative stimulus”. (Lloyd, 2019)

The complexities of choosing not just when but *where* best to lift different aspects of the current policy will be enormous. It is essential that a more local perspective be added to the debate and that the necessity to have a blunt national lever pulled centrally for an emergency situation does not follow through to a centralised view of the transition and restoration phases of the recovery. Regional and local voices will be vitally needed if these policies are to be sensitively applied.

²⁷ https://www.intelligenttransport.com/topic_hub/covid-19-transport-news-analysis/

2.5 Recovering toward the longer term

2.5.1 A complex, dynamic system hard to control

As the pandemic reduces in impact (we cannot realistically consider that it will be over within a year, and the World Health Organisation predicts more outbreaks (Wells, 2020a)) many things will not be the same again. There are lessons to be learned from the events but perhaps the most prominent among them is that we are more exposed to risk as humanity and society than we have been in recent memory. Our earlier paper explored this in some detail. It is not just that everyone has been badly shaken by an event so few knew (or acknowledged) was possible, it is that a system that has been collectively constructed over the last four decades has generated forces that are difficult for most people to understand.

This has happened twice in just over a decade. The economic crash of 2008 - though less catastrophic – was a lesson of the same order. The banking crisis of 2008 caught even the financial players themselves completely unawares and struggling to understand what had happened. For most people, the workings of the global economic and financial system are opaque at best.

Facing this, the economic theories that have so dominated politics, societies, and our individual lives have been found seriously wanting. In particular, the idea that leaving it to a free-ranging global financial sector and to market forces will produce the best possible outcomes has foundered on the rock of hard reality. The Neoliberal system was already failing on its own terms, but a virus pandemic has exposed just how vulnerable it has made us all as individuals and as social beings to uncontrolled events.

It speaks volumes that in order to suppress a contagious and dangerous infection, governments had to halt global interaction and force the people to give up their ability to come together face-to-face as social human beings. Despite (or perhaps even because of) the current awesome technical prowess, there is a need to reconsider what really matters, rather than chasing the dragon of individual consumer satisfaction and finance-led pressure for continuing GDP growth.

In respect of coronavirus per se, while there were warnings of the threat of global pandemic, there was little understanding of the speed and scale of the contagion, or of the ability of the virus to penetrate the entire global system so fast and so comprehensively. The lesson to be learned is of the absence of controlling mechanisms for a globalised, hypermobile dynamic system that was built to satisfy the needs and wants of the consumer society and of finance capital. It has needed near-total shutdown and the direct action of the nation states to rein in the pandemic.

The price we are paying is enormous and we are nowhere near knowing what the system will look like at the end of the event. This is surely the time to be asking the big questions about what we want for society and for humanity while we have been shocked into a pause in the system to which we have become so willingly enslaved.

2.5.2 Waiting for the techno-fix

The hope is of course that technology will once again come to our rescue in the form of a vaccine or a tracking system that will allow us to shut down contagion. Indeed, we have to hope that this is so, and the UK Government briefing of 17 April focused strongly on developing a vaccine:

“Scientists at the University of Oxford say they should have at least a million doses of a coronavirus vaccine by September this year. The UK government, which is backing the project, said there were “no guarantees” and it was not possible to put a date on a vaccine” {BUT} “Most experts still estimate it will take 12 to 18 months to develop and manufacture a vaccine.” (Gallagher, 2020)

However, as noted above, the time delay in getting us to that point where a vaccine is available has the potential to undermine the economy and the social order and bring some parts of it to a breaking point. This is not just a national issue but an international one. The virus risks having a cataclysmic impact in Africa and the developing world generally where countries often have fragile health systems (Nyenswah, 2020) and where systems are likely to fall short in the reporting of outbreaks and deaths²⁸.

The combination of the hyper-speed contagion of COVID-19, the critical need to resume economic activity to avoid a catastrophic collapse of economies, and the fact that a vaccine could be up to a year away from mass production and distribution, faces governments with a terrifying dilemma. There will probably be a technofix - but will it arrive at the time and at the scale necessary to avoid economic and social breakdown in some of the more vulnerable contexts internationally, nationally and locally?

2.6 Imagining the outline of a new future

On 31 January 2020, the UK Prime Minister addressed the nation, at this time blissfully unaware of the viral hurricane approaching the country. With some terribly unfortunate foresight about a “breaking” national drama, he said:

“This is the moment when the dawn breaks and the curtain goes up on a new act in our great national drama ... This is the moment when we really begin to unite and level up ... We will spread hope and opportunity to every part of the UK.” (Johnson, 2020)

The policy debate then was about the UK having left the European Union and of ‘levelling up’ the regions of the North, of HS2 and Heathrow expansion. Now, facing certain recession or even depression, all look like sideshows when contrasted with the prospects we face going forward. While the sheer size of the task ahead can look daunting, it is vital to begin a new debate about the future by acknowledging that there have been major structural issues that should have been addressed before the pandemic arrived.

As we note in this paper, the growth of inequality is more than just a threat to those who suffer it, it has been allowed to grow to become a threat to economic and social stability. The virus event – still in its early stages – has revealed to us just how close we have become to allowing a substantial proportion of the UK population to lack the resilience to resist an external shock. As researchers communicated on April 15:

“The social distancing and isolation associated with COVID-19 policy has had substantial negative impacts on the mental health and wellbeing of the UK public within a short time of policy implementation. It has disproportionately negatively affected those in low-paid or precarious employment.” (Williams et al., 2020)

2.6.1 Addressing Inequality

The UK entered the present crisis with very high levels of inequality in the distribution of wealth and income – across the population and across its regions²⁹. No act of deliberate thought or policy directly willed it to be this way. The globalised economic system of recent decades followed its “natural” pathway by making inequality an emergent feature. It involved the inexorable rise of the precarious, globalised labour market with its low wages, insecurity and lack of protection against risk for those participating in it. While

²⁸ <https://www.africanews.com/2020/04/14/coronavirus-africa-update-on-the-ongoing-novel-coronavirus-covid-19-global-epidemic-brief-13/>

²⁹ <https://www.equalitytrust.org.uk/scale-economic-inequality-uk>

employment numbers in recent years were on the rise and unemployment falling, the positive news about the rise masked how vulnerable the new forms of work made those people who took on the jobs.

While this was happening, the state focused its attention on economic efficiency. The undermining of the NHS was (as we have seen) one outcome. The year-on-year reduction of funding for those public and welfare services with a responsibility for the disadvantaged was another. The Local Authorities (now granted a total of £3.2 billion to cope by April 18 (SKY, 2020)) have been in the forefront of the cuts for a decade – producing in the poorest areas those place-based outcomes that were described by Chakraborty earlier. Resilience to shock was stripped away across the board, and we now have to cope with the consequences.

In imagining a new future, it is surely unthinkable that society and economy could simply return to the previous path. The dangers are too great, and the government has found itself having quickly to put back a proportion the public resources that were stripped, just to respond to the emergency. The disciplines of the public finances that drove policy for the public sector for a decade were swept away overnight to cope with the situation. But as we see with the NHS, the human, institutional and material capacity to respond is simply not there, and resilience will take time to rebuild. Lifting lockdown will not be sufficient to put things right.

A strategy for ending lockdown needs to acknowledge that, in respect of the likely position of the most vulnerable, there is an urgent need for a new overall policy. Debate on some form of Universal Basic Income (UBI) can form part of this (Shrimley, 2020). The first step should, however, be to act quickly to ensure the well-being of those hardest hit,

Delays of any kind could have dire consequences for a nation that had 4 million children in poverty even before the pandemic arrived. Now, while we wait for the contagion to ease, is the time to move the national debate from when lockdown will end to *'what do we need to do most urgently and for whom?'* as the recovery phase starts.

2.6.2 Valuing the public service

For a decade, cost efficiency overrode quality of service outcomes for people as the standard for the public services. The workers – by far the highest cost component in the delivery of that service – had to fight hard over that time to maintain levels of pay appropriate to their skills and to the value of their contribution. Of course, that value is widely recognised and across the country people (even the Prime Minister) clap each Thursday to acknowledge the enormity of contribution of 'key workers'. The loss of the capacity to respond we talked about in the previous section is essentially a shortage of people as much as beds and PPE. In October 2019 there were 43,000 unfilled nurse vacancies (Mitchell, 2019).

Since such a high proportion of the NHS workforce was sourced for decades from the EU and overseas, we should not find ourselves surprised at the cultural variety of the people we applaud. Brexit and immigration policy at national level have had a role to play in determining capacity. Vacancies and staff shortages arose as part of the adjustment process immediately before the pandemic arrived. The effective dismembering, de-staffing and re-positioning of public health in our society has come back to haunt the nation, and that must surely be the justification for a rapid re-think.

Outside the NHS in the social care and social welfare economy more generally, privatisation and the absence of established wage bargaining systems have seen pay held close to (or in many cases below) the National Living Wage. Public attitudes about this being to do with low skill are hopefully undergoing a sea change at the moment. Privatisation and the disaggregation of provision in non-NHS care has seen efficiency and productivity (narrowly defined) keep wages levels close to the minimum. Even with this,

however, the private-for-profit and charitable providers in the sector struggle for survival against austerity-constrained Local Authority payments for care packages and care homes (Plimmer, 2020).

The Local Authorities have taken the brunt of public sector expenditure cuts. Apart from their role in delivering health and social care outside the NHS, they have the wider remit for the support of the communities they serve. Increasingly over the decade they have been forced back to the delivery mainly of the services they are mandated to provide. Local economic development, supporting the built environment, investment to create jobs and the maintenance of the high streets among other things has been cut to the bone. Going forward, the potential impact of months of lost business and the acceleration of already visible trends in the retail sector will need to be managed if we are not to hear more talk of the “places left behind”.

2.6.3 Rethinking what the public values

One of the opportunities arising from the COVID-19 pandemic is an opportunity to hold a national conversation about the balance between the public and the private sector in national life. This debate over the last four decades has been focused on – “*what adds best value in the public sphere and how most efficiently to deliver it?*” Privatisation and efficient financial management have dominated the conversation. People may now be ready to talk about the bigger question – “*what do they really value and how should the public sphere play a role in its delivery?*”

This is the sort of serious – post-crisis - debate that took place at the close of WW2 with the foundation of the NHS, the 1944 Education Act and the Town and Country Planning Acts³⁰. *Security against systemic shocks* would probably rank high on today’s agenda for the – “*what do we value?*” - debate. With the experience of lockdown fresh in the mind, perhaps, the debate should also ask “*where should cooperation, sharing and equity rank in the national value system?*”. Both questions would naturally raise issues of trust. Trust in government and trust in each other, at a time when trust in our politicians is very low - at 14% (Ipsos-MORI, 2019).

Establishing “*what the public values*” is, of course, the ultimate contested terrain of politics. People vote for the parties that meet their perspectives on what values are to be privileged and how they are to be promoted and achieved. This debate will come in time. However, what has been set out above is an invitation to use the present necessary, but overwhelming, disruption in national life to think carefully as citizens about where we are and how we have come to be here.

There is a need to think and a time to do. It is quite wrong to suggest that ‘thinking about the lifting of lockdown’ is something to be set aside. Accepting that the ‘*when*’ of lifting it may be about epidemiology, the “*what shall things look like afterwards and what do we need to think about doing?*” is a task for now and for every moment we can use at present.

2.7 Chapter bibliography

BBC. 2020. *Coronavirus: Freeze on pawn, payday and car loan payments*. British Broadcasting Corporation (BBC). Published April 17. Available: <https://www.bbc.co.uk/news/business-52321723>. [Accessed April 17 2020].

³⁰ <https://www.nationalarchives.gov.uk/cabinetpapers/themes/land-use-planning.htm>

- BRAUN, E., KAYALI, L. & TAMMA, P. 2020. *Coronavirus pandemic leaves gig economy workers exposed*. Politico.eu. Published March 19. Available: <https://www.politico.eu/article/coronavirus-pandemic-leaves-gig-economy-workers-exposed/>. [Accessed March 23 2020].
- BURNS, J. 2020. *Coronavirus: Further delays to children's food vouchers*. British Broadcasting Corporation (BBC). Published April 14. Available: <https://www.bbc.co.uk/news/education-52283067>. [Accessed April 15 2020].
- CHAKRABORTTY, A. 2019. *Britain's infrastructure is breaking down. And here's why no one's fixing it*. Guardian (UK). Published August 14. Available: <https://www.theguardian.com/commentisfree/2019/aug/14/britain-social-infrastructure-money-national-grid> [Accessed April 2 2020].
- CHAZAN, G. 2020. *Oversupply of hospital beds helps Germany to fight virus*. Financial Times (London). Published April 13. Available: <https://www.ft.com/content/d979c0e9-4806-4852-a49a-bbffa9cecf6>. [Accessed April 14 2020].
- CONWAY, R. & WALLACE-STEPHENS, F. 2019. *Rethinking the safety net for 21st century workers*. Royal Society for Arts. Published August 15. Available: <https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2019/08/economic-safety-net>. [Accessed January 5 2020].
- DAVIES, H., PEGG, D. & LAWRENCE, F. 2020. *Revealed: value of UK pandemic stockpile fell by 40% in six years*. Guardian (UK). Published April 12. Available: <https://www.theguardian.com/world/2020/apr/12/revealed-value-of-uk-pandemic-stockpile-fell-by-40-in-six-years>. [Accessed April 12 2020].
- DHSC. 2020. *NHS debt write-off: regional breakdown* Department of Health and Social Care (UK). Published April 9. Available: <https://www.gov.uk/government/publications/nhs-debt-write-off-regional-breakdown>. [Accessed April 10 2020].
- DOWARD, J. 2020. *Nearly seven million jobs at risk if lockdown lasts for months*. Guardian (UK). Published April 19. Available: <https://www.theguardian.com/world/2020/apr/19/nearly-seven-million-jobs-at-risk-if-lockdown-lasts-for-months>. [Accessed April 19 2020].
- EASTON, M. 2020. *Coronavirus: Significant minority find lockdown 'extremely difficult', poll suggests*. British Broadcasting Corporation (BBC). Published April 9. Available: <https://www.bbc.co.uk/news/uk-52228169>. [Accessed April 10 2020].
- GALLAGHER, J. 2020. *Coronavirus vaccine: Target of a million doses by September, scientists say*. British Broadcasting Corporation (BBC). Published April 17. Available: <https://www.bbc.co.uk/news/health-52329659>. [Accessed April 17 2020].
- GARGIULO, S. 2020. *Denmark's return to school gives glimpse of what classrooms will look like post-lockdown*. CNN. Published April 17. Available: <https://edition.cnn.com/2020/04/17/europe/denmark-coronavirus-first-school-intl/index.html>. [Accessed April 17 2020].
- GERRITSEN, J. 2020. *Covid-19: Longer lockdown could harm education - principals*. RNZ New Zealand. Published April 9. Available: <https://www.rnz.co.nz/news/national/413842/covid-19-longer-lockdown-could-harm-education-principals>. [Accessed April 10 2020].
- GIUFFRIDA, A. & TONDO, L. 2020. *Singing stops in Italy as fear and social unrest mount* Guardian (UK). Published April 1. Available: <https://www.theguardian.com/world/2020/apr/01/singing-stops-italy-fear-social-unrest-mount-coronavirus-lockdown> [Accessed April 2 2020].

- GRIERSON, J. 2020. *Domestic abuse killings 'more than double' amid Covid-19 lockdown*. Guardian (UK). Published April 15. Available: <https://www.theguardian.com/society/2020/apr/15/domestic-abuse-killings-more-than-double-amid-covid-19-lockdown>. [Accessed April 15 2020].
- HAYNES, C. 2020. *Coronavirus: Front-line NHS staff 'at risk of PTSD'*. British Broadcasting Corporation (BBC). Published April 12. Available: <https://www.bbc.co.uk/news/uk-52258217>. [Accessed April 15 2020].
- HOLMES, E. A., O'CONNOR, R. C., PERRY, V. H., et al. 2020. *Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science*. The Lancet. Published April 15. Available: [https://www.thelancet.com/pdfs/journals/lanpsy/PIIS2215-0366\(20\)30168-1.pdf](https://www.thelancet.com/pdfs/journals/lanpsy/PIIS2215-0366(20)30168-1.pdf). [Accessed April 16 2020].
- IPSOS-MORI. 2019. *Trust in politicians falls sending them spiralling back to the bottom of the Ipsos MORI Veracity Index*. Ipsos MORI. Published November 26. Available: <https://www.ipsos.com/ipsos-mori/en-uk/trust-politicians-falls-sending-them-spiralling-back-bottom-ipsos-mori-veracity-index> [Accessed January 6 2020].
- ISLAM, F. 2020. *Coronavirus: Self-employed bailout 'problematic'*. British Broadcasting Corporation (BBC). Published March 24. Available: <https://www.bbc.co.uk/news/business-52021299>. [Accessed March 24 2020].
- JOHNSON, B. 2020. *PM address to the nation: 31 January 2020*. Prime Minister's Office (UK). Published January 31. Available: <https://www.gov.uk/government/speeches/pm-address-to-the-nation-31-january-2020> [Accessed January 31 2020].
- KINGSFUND. 2020. *What's going on with A&E waiting times?* The King's Fund. Published March 25. Available: <https://www.kingsfund.org.uk/projects/urgent-emergency-care/urgent-and-emergency-care-mythbusters#waiting-times-in-recent-years>. [Accessed April 5 2020].
- LEE, J. 2020. *Mental health effects of school closures during COVID-19*. The Lancet. Published April 14. Available: [https://doi.org/10.1016/S2352-4642\(20\)30109-7](https://doi.org/10.1016/S2352-4642(20)30109-7). [Accessed April 15 2020].
- LEWIS, B. 2020. *Coronavirus: 'Substantial risk' nurseries will not survive pandemic*. British Broadcasting Corporation (BBC). Published April 17. Available: <https://www.bbc.co.uk/news/uk-wales-52330712>. [Accessed April 17 2020].
- LLOYD, P. E. 2019. *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Peter Lloyd Associates. Published December. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed February 3 2020].
- LONGFIELD, A. 2019. *The state of child poverty and how we can tackle it*. Children's Commissioner for England. Published October 19. Available: <https://www.childrenscommissioner.gov.uk/2019/10/17/the-state-of-child-poverty-and-how-we-can-tackle-it/>. [Accessed October 20 2019].
- MASON, R. 2020. *Keir Starmer calls for ministers to set out plans to end lockdown*. Guardian (UK). Published April 15. Available: <https://www.theguardian.com/world/2020/apr/15/keir-starmer-calls-for-ministers-to-set-out-plans-to-end-coronavirus-lockdown>. [Accessed April 15 2020].
- MILLS, J. 2020. *World peace at risk as coronavirus could bring social unrest and violence*. Metro News. Published April 10. Available: <https://metro.co.uk/2020/04/10/world-peace-risk-coronavirus-bring-social-unrest-violence-12537515/>. [Accessed April 11 2020].
- MITCHELL, G. 2019. *NHS nurse vacancies in England rise to more than 43,000*. Nursing Times. Published October 8. Available: <https://www.nursingtimes.net/news/workforce/nhs-nurse-vacancies-in-england-rise-to-more-than-43000-08-10-2019/>. [Accessed March 5 2020].

- NEVILLE, S., DICKIE, M., COCCO, F., et al. 2020. *Empty non-coronavirus beds raise fears that sickest are avoiding NHS*. Financial Times (London). Published April 10. Available: <https://www.ft.com/content/d5ac0a79-6647-4f49-bb64-d1cc66362043>. [Accessed April 11 2020].
- NHS. 2017. *Improvement Leaders' Guide – Matching Capacity and Demand Process and Systems Thinking*. National Health Service, England. Published November 30. Available: <https://www.england.nhs.uk/improvement-hub/publication/improvement-leaders-guide-matching-capacity-and-demand-process-and-systems-thinking/>. [Accessed April 7 2020].
- NHS. 2020. *NHS steps up coronavirus fight with two more Nightingale Hospitals*. National Health Service, England. Published April 10. Available: <https://www.england.nhs.uk/2020/04/nhs-steps-up-coronavirus-fight-with-two-more-nightingale-hospitals/>. [Accessed April 15 2020].
- NYENSWAH, T. 2020. *Africa has a COVID-19 time bomb to defuse*. World Economic Forum. Published April 6. Available: <https://www.weforum.org/agenda/2020/04/africa-covid-19-time-bomb-defuse/> [Accessed April 10 2020].
- ONS. 2020. *Coronavirus and homeworking in the UK labour market: 2019*. Office for National Statistics (UK). Published March 24. Available: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusandhomeworkingintheuklabourmarket/2019>. [Accessed April 12 2020].
- PLIMMER, G. 2020. *Private equity and Britain's care home crisis*. Financial Times (London). Published February 9. Available: <https://www.ft.com/content/952317a6-36c1-11ea-a6d3-9a26f8c3cba4>. [Accessed February 10 2020].
- PRESS, C. 2020. *Coronavirus: The NHS workers wearing bin bags as protection*. British Broadcasting Corporation (BBC). Published April 5. Available: <https://www.bbc.co.uk/news/health-52145140>. [Accessed April 6 2020].
- RAMCHANDANI, P. 2020. *Covid-19: We can ward off some of the negative impacts on children*. New Scientist. Published April 8. Available: <https://www.newscientist.com/article/mg24532773-000-covid-19-we-can-ward-off-some-of-the-negative-impacts-on-children/>. [Accessed April 8 2020].
- RAYNER, T. 2020. *Coronavirus: No 'exit' to full lockdown until there's a vaccine says health minister*. Sky.com. Published April 16. Available: <https://news.sky.com/story/coronavirus-no-exit-to-full-lockdown-until-theres-a-vaccine-says-health-minister-11973906> [Accessed April 17 2020].
- SHRIMSLEY, R. 2020. *Boris Johnson's agenda is over — a new politics will emerge*. Financial Times (London). Published March 23. Available: <https://www.ft.com/content/21672cd6-6ce4-11ea-9bca-bf503995cd6f>. [Accessed March 31 2020].
- SKY. 2020. *Coronavirus: Councils in England given an extra £1.6bn to tackle COVID-19 crisis*. Sky.com. Published April 18. Available: <https://news.sky.com/story/coronavirus-councils-in-england-given-an-extra-1-6bn-to-tackle-covid-19-crisis-11975203>. [Accessed April 18 2020].
- SMF. 2020. *Department for Opportunities warns educational divide set to widen during epidemic*. Social Mobility Foundation (UK). Published April 7. Available: <https://www.socialmobility.org.uk/2020/04/department-for-opportunities-warns-educational-divide-set-to-widen-during-epidemic/>. [Accessed April 10 2020].
- SMITH-SPARK, L. 2020. *These countries are reopening -- here's how they're doing it*. CNN. Published April 11. Available: <https://edition.cnn.com/2020/04/11/health/european-countries-reopening-coronavirus-intl/index.html>. [Accessed April 11 2020].

- STATON, B. & EVANS, J. 2020. *Three million go hungry in UK because of lockdown*. Financial Times (London). Published April 11. Available: <https://www.ft.com/content/e5061be6-2978-4c0b-aa68-f372a2526826>. [Accessed April 11 2020].
- TONDO, L. 2020. *Mafia distributes food to Italy's struggling residents*. Guardian (UK). Published April 10. Available: <https://www.theguardian.com/world/2020/apr/10/mafia-distributes-food-to-italys-struggling-residents>. [Accessed April 12 2020].
- TOWNSEND, M. 2020. *Revealed: surge in domestic violence during Covid-19 crisis*. Guardian (UK). Published April 12. Available: <https://www.theguardian.com/society/2020/apr/12/domestic-violence-surges-seven-hundred-per-cent-uk-coronavirus>. [Accessed April 13 2020].
- TRIGGLE, N. 2020. *Coronavirus: How to understand the death toll*. British Broadcasting Corporation (BBC). Published April 16. Available: <https://www.bbc.co.uk/news/health-51979654>. [Accessed April 17 2020].
- WALL, T. 2020. *Cramped living conditions may be accelerating UK spread of coronavirus*. Guardian (UK). Published April 12. Available: <https://www.theguardian.com/world/2020/apr/12/virus-hitting-hardest-modern-equivalent-victorian-slums>. [Accessed April 12 2020].
- WELLS, A. 2020a. *Coronavirus: Europe and the US could be hit by three more waves of COVID-19, WHO director warns*. Yahoo. Published April 15. Available: <https://uk.news.yahoo.com/coronavirus-second-wave-covid-19-135341831.html> [Accessed April 16 2020].
- WELLS, A. 2020b. *Coronavirus: London's NHS Nightingale 'largely empty' and 'only had 19 patients' over Easter*. Yahoo. Published April 15. Available: <https://uk.news.yahoo.com/nhs-nightingale-coronavirus-easter-084502055.html>. [Accessed April 15 2020].
- WILLIAMS, S. N., ARMITAGE, C. J., TAMPE, T., et al. 2020. *Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study*. medRxiv.com. Published April 15. Available: <https://doi.org/10.1101/2020.04.10.20061267>. [Accessed April 17 2020].

3.0 Emerging from Covid-19 – Managing the Transition

Paper 3 was released on **11 May 2020**.

The Pandemic Summary Timeline – 20 April 20 to 11 May 2020

20 April – Transport for London moves to start trying to protect drivers of buses. Infection levels are starting to ‘flatten out’ across the country.

23 April – Testing capacity is now reported at 51,000 a day, bookable (for home testing, or at drive-through sites) through an official website. The government announce they will recruit 18,000 contact tracers.

28 April – Testing capacity officially reaches 73,000 per day. Tests are now available to all workers in care homes and the family members of residents.

2 May – With a total shutdown over six weeks of refuse recycling centres there has been a big increase in fly-tipping. Recycling centres are starting to reopen.

5 May – An NHS Nightingale Hospital North East is officially opened near Sunderland.

7 May – The government appoints Baroness Dido Harding to head the test and trace programme.

10 May – The headline message used by the government changes from "stay at home, protect the NHS, save lives" to "stay alert, control the virus, save lives". The devolved administrations remain using the original message. A five stage ‘alert’ system is introduced in England. The Prime Minister addresses the ‘nation’ (than means England) to ‘explain’ the new system. A 50-page document is published the next day detailing the new arrangements.

11 May – People in England are advised to wear face coverings. Plans to reopen schools on June 1 are criticised by the teacher unions.

Derived from Wikipedia³¹

3.1 Looking back at Paper 3

By the time we arrived at the beginning of May, we were looking back at a disastrous phase for both the health and the economic aspects of the pandemic. The model predictions of the epidemiologists had followed through faithfully to produce an exponential rise in the numbers of cases and commensurate rises in hospitalisations and deaths. Any early hopes that lockdown would provide an immediate solution to the problem of contagion had long been discarded. Output had fallen in the previous month more sharply than ever before. The sheer scale and complexity of the crisis was now in full view.

³¹ https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

- In April, the population had responded well to the requirement to; “*stay home, protect the NHS, save lives*” and the **NHS had not been overwhelmed** by coronavirus cases. (*As we enter 2021 the same strapline is being used again*)
- It was revealed at this point that there were two different measures of Covid-19 deaths in play, one used by the ONS and one by Public Health England – an early and shocking first thread in a series of stories about how structures of governance created **problems in obtaining critical data**. (*At end of 2020, we finally have access to good quality dashboards of data under the auspices of ONS*).
- In early May, **compliance with the lockdown was starting to fracture**. “Saving the NHS” was not playing quite so strongly once the feared lines of stretcher cases in the corridors did not materialise and the new London Nightingale hospital was unoccupied (*high profile breaches of the rules were being widely resented and jokes about “eye test” visits are even now part of everyday discourse*)
- The day before Paper Three was released, the UK government **updated its coronavirus message** from “*stay at home, protect the NHS, save lives*” to “*stay alert, control the virus, save lives*”.
- Leaders of the devolved governments in Scotland, Wales and Northern Ireland said they would **keep to the original slogan**. (*Variable messaging across the UK was to be a feature from this point forward*)
- The problem of mixed and unclear messages was raising its head and **trust was beginning to leak away**. The infections data was beginning to improve - but the worry was that this might cause a slacking of compliance and there was a sense in some quarters that government was not “levelling with the people”.
- The question of schools became a live one towards the end of the month, with the Prime Minister announcing that a plan to **re-open schools on 1st June**. The situation for school examinations and assessment also made its first appearance in the public sphere. (*While raised at this point, we know that later a scramble and a volte face over A-level results was in the offing*)
- The importance of getting people back to work (not unconnected with children going back to school) was beginning to bear heavily on policy from now on. The 50-page government document of 10th May emphasised the need for **workplaces to be “Covid-19 secure”** before a full opening up could proceed.
- This was a time of breathless activity dominated by quickly drafted regulations that were inevitably throwing up **anomalies in practical application** necessitating frequent readjustments.
- The difficulties of the economy and of mounting job losses were beginning to make their presence strongly felt. Economic output had **fallen by a staggering 25%** in April. The central view was still that fast recovery on opening up would take care of this exceptional situation (*There was a recovery on opening up (-9.6% fall in GDP) in the following month but further lockdowns were to come*).
- Business leaders and the CBI began to move to encourage the government to rescue the economy as more **high-profile redundancies** were announced.
- On April 17th, local Directors of Public Health and outside observers like ourselves had their first gained access to **better data on the geography** of the pandemic. This clearly identified the

extreme **local differentiation** of the process and its association with multiple deprivation. (*The better information has provoked nothing in the form of a meaningful policy response to date*)

- Paper 3 made a strong case that policy should turn to consider the **variable reality of outcomes** on the ground with as much information as possible made publicly available at a granular level (*By the end of the year with the introduction of the variable Tier system, a mechanism finally arrived to make flexible adjustments in relation to variable geographical outcomes*)
- The absence of a multi-level system of policy governance - locked out by early decisions to **turn away from the local** – was now beginning to have a practical impact on how the virus was tackled.
- The idea that there could be a **second wave** was now emerging with **visible hotspots** indicating where this might be initiated. Doubters were wondering if this was no more than another means to capture compliance by introducing something else to fear. They tuned out to be wrong.
- Throughout April, there was precious little time for reflection. **Firefighting** was the order of the day.

PAPER THREE 'EMERGING FROM COVID-19' FOLLOWS

3.2 Responding to COVID-19

3.2.1 A strong initial narrative

In March 2020, a goal of a maximum of 20,000 COVID-19 deaths was described as the most hopeful outcome of the pandemic by Chris Whitty (Chief Medical Officer for England) (Haynes, 2020). This number was passed towards the end of April³². By the end of the month, media speculation was suggesting that deaths may at least be double the original at 40,000 or even higher (Merrick, 2020). On May 8th, the official total of deaths was 31,241 which was an increase of 626 over the past day. To keep the count as low as possible, the vast majority of the population have abided by the '*stay at home, protect the NHS, save lives*³³' message. They have complied with the draconian rules of isolation and social distancing, accompanied by the cessation of the attendant activities of face-to-face education, non-essential retail and business activities, socialisation, routine travel, routine healthcare and planned non-urgent operations.

The temporary Nightingale Hospitals (NHS, 2020) were quickly in place - with the last of them in Harrogate and Bristol opened by the end of April. The advice to the public was not to contact the emergency health lines unless necessary. Not everything, however, has led to a rational outcome, and there is now concern that "*close to half the beds in some English hospitals are lying empty in a sign that people may be failing to seek help for other life-threatening conditions during the coronavirus pandemic*" (Neville et al., 2020).

By 27th April, the Prime Minister was able to declare that the sacrifices asked of the population had been worthwhile. His statement said "*we did not allow our NHS to collapse ...and on the contrary we have so far collectively shielded our NHS so that our incredible doctors and nurses and healthcare staff have been able to shield all of us ...from an outbreak that would have been far worse*" (Johnson, 2020a).

On 4th May the London Nightingale Hospital was mothballed, and the government announced that hospitals will be re-opening for non-coronavirus procedures. The NHS had not then been 'overwhelmed' and to that

³² <https://www.theguardian.com/politics/live/2020/may/08/uk-coronavirus-live-britain-ve-day-anniversary-lockdown-covid-19-latest-updates>

³³ <https://www.gov.uk/coronavirus>

extent the policy had worked. The message that hospital emergency departments were seen to be running on average at only 50 percent of their capacity, while welcome, brought its own problems as it came to light that non-coronavirus deaths were rising, and that a backlog of routine procedures was building up (Sample, 2020).

Despite these positive signs, the anticipated fall-off in cases and deaths did not materialise (largely due to the late addition of deaths in care homes). Seeing the trend, the Prime Minister declared that he did not want to relax lockdown and “*risk a second major outbreak and huge loss of life and the overwhelming of the NHS*” (Johnson, 2020a). At this point, the message to the population changed. The new ‘contract’ to continue with the disruption was now to be that we are looking to avoid a ‘second wave’ where the contagion takes off again. There is some justification for this fear, since a second wave was taking place in Singapore at that point - originally held up as a model of control (Palma, 2020). There was also concern about whether the looser approach in Sweden (enabling a continuity of business and social life) had been successful (Reynolds, 2020). At this point, fear of the effects of the virus still overrode the logic for reducing economic impact. But pressure was coming to bear from many quarters for a strategy for unlocking to be laid out and government messages were becoming increasingly less closely controlled.

3.2.2 Unlocking strategy arrives on the agenda

Continuing the lockdown was starting to prove harder to sell in the face of rapidly emerging stories of the loss of jobs, (28% of British Airways employees – 12,000 in all – being at threat of redundancy (BBC, 2020a), and 8,000 jobs at risk at Rolls Royce (BBC, 2020f), alongside a fundamental change in the global airline business (Horton, 2020)). Business leaders and the CBI began to move to encourage the government to rescue the economy (Thomas and Pickard, 2020). Alongside this, there was a wider message that it may be difficult to restart the economy without restarting the education process, since children who remain at home do not then release their parents to resume work (OECD, 2020).

While the earlier lockdown exhortations were stark, and they were set in the context of an ongoing emergency, the possibility of risking a second wave is more speculative (in terms of where is it more likely to be and the timing, more than in terms of its inevitability (Lacina, 2020)), and is set against emotional, financial and mental exhaustion being experienced by people (Payne, 2020). On May 4th the Office for National Statistics reported that “*almost half of people in Great Britain asked about their well-being reported high levels of anxiety in the days surrounding the lockdown*”³⁴.

The message this time is more conditional and less easy to capture in a meaningful strapline. Government is on the one hand playing out the line of the original contract (*protect the NHS; save lives*) as the moving average statistics show that infections are slowly tapering off; while also rolling out the new goal of “no second wave”. Messages are becoming less clear while people are naturally wanting to know more about what is to happen next.

On May 7 some national newspapers reported optimistically that the lockdown would be relaxed by May 11 (for example allowing visits to the countryside or sunbathing and picnics), prompting a very quick row-back by the government (do not travel to beauty spots on the May 8 bank holiday (BBC, 2020c)), as well as generating confusion between the devolved administrations (Scotland, Wales, Northern Ireland) and the

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<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19roundup/2020-03-26>

government in London (BBC, 2020e). Managing the transition out of lockdown is clearly going to be more difficult – with governance and trust issues emerging (Smith, 2020).

As we move to a new and different phase of the policy response to the pandemic, there is a need to move thinking from the focus on central direction in the emergency phase to one that can be more nuanced and multi-dimensional as we learn more about the *variety of on-the-ground conditions* across which both the virus and lockdown been playing out. For this we need *better data and a different scale of analysis* than we have had at our disposal up to this point. Geography is important.

3.2.3 Geographies matter

There is a considerable literature about the geography of epidemics. The definitive early work was by Andy Cliff and Peter Haggett [Cliff, 1989 #64790. This sets out the principles of geographical epidemiology and suggests measures for controlling spread from this viewpoint. Since that time, a considerable amount of work in the field has covered Ebola, Zika and HIV-AIDS, all with clear relevance to the current situation for COVID-19³⁵. Surprisingly, however, the micro-spatial aspects of the current outbreak in the UK have not come to the fore in the day-to-day debates on the incidence of the COVID-19 infection.

One clear reason for this is that we have, until recently, been “data-blind” at a scale that can tell us about local patterns of cases and how they are shifting across and between local networks and communities. We have been able to see something of the diffusion of the infection down the urban hierarchy from London and the major cities, outwards to smaller cities and towns and on to rural settings – but not at geographical scales below this: “*High-density urban agglomerations may be sustainable in terms of the economies of scale their populations provide. Yet, as proven by the ongoing COVID-19 pandemic, these same urban spaces are nearly defenceless in times of unprecedented disease outbreaks*” [Desai, 2020 #63442].

Until May 1st, the most widely available geographical framework for the data on COVID-19 cases and deaths was for Strategic Local Authority units (Counties and Unitary Authorities)³⁶. This mapped onto the spatial form of organisation for Public Health in England. It did not, however, offer a sufficiently granular lens through which to observe the spatial progression of contagion - making it hard to associate it with local health and social conditions³⁷. The case and deaths statistics did not, then, show the local context - serving to hide a vital component of any epidemiological study of infection – the detailed spatial diffusion of the incidence of cases and outcomes.

3.2.4 Being better informed about context: The local and the multiply deprived

While we know that the risk of being infected with the virus has significant variation geographically (as well as medically, demographically, and ethnically), we have not been able to learn enough about this. Pulling centralised policy levers from a podium in front of Downing Street cannot be the only response going forward. A more nuanced, multi-level approach with a strong bottom up component is needed to take us knowledgeably through the recovery process. That, of course, chimes in well with the promised devolution of power promoted by the current Conservative party through the election of Mayors to govern at more city and local levels (BBC, 2012).

A more appropriate geographical lens through which to understand the effects of COVID-19 needs to be at a more granular level than the ‘space’ of a Strategic Authority. Thankfully, this recently arrived in the form

³⁵ We are indebted to Professor Tony Gatrell for letting us see an early draft of a forthcoming paper on this.

³⁶ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases>

³⁷ We have this available to us at the appropriate scale from maps of the Index of Multiple Deprivation (IMD), <https://www.gov.uk/guidance/english-indices-of-deprivation-2019-mapping-resources>

of the ONS series looking at Deaths involving COVID-19 by local area (MSOA – Postcode District) up to 17th April (ONS, 2020c). This showed, for the first time, deaths from the virus with some useable ground truth - displaying the disease in a way that helps us to see its local incidence. What became immediately clear from this data is that the incidence of COVID-19 deaths is spatially concentrated in the major cities and movement corridors, and, in particular, that it *cross-maps onto the most impoverished places* in those contexts. .

Our previous paper suggested, without the data to inform it at that time, that the social and spatial impact of lockdown would be hugely variable. We are not ‘all in this together’; “*contagious disease spreads more rapidly in overcrowded housing. The link between overcrowding and coronavirus has been made both in relation to England and elsewhere*”³⁸. We can now confirm that there is a differential impact of COVID-19 on ethnic minorities (Barr et al., 2020). We can begin to look more deeply into the combination of physiological risks and impacts associated with social exclusion and poverty; “*physiological risks associated with the virus cannot be separated from their social exposures*”³⁹.

The new ONS data make it abundantly clear that the most deprived areas and their population have been dramatically more affected – with twice the rate of deaths per number of cases in some inner London boroughs, for example. The inner circle of London suburbs was a particularly prominent feature of the ONS map and helped show how it is possible for a very London-centric view of the pandemic to have emerged. However, we know about deaths but not about cases at this spatial level of resolution (See Figures 3 and 5 in the ONS publication – Figure 5 is interactive and moving a cursor across the areas shows the numbers (ONS, 2020b)).

3.2.5 Localised assessment of risk

COVID-19 contagion has moved across the "action spaces" of people (where they go to shop, socialise, work, take the children to school and so on) and the networks that bring them into contact. These are the spaces where a realistic view of the de facto risk of personal contagion can be understood (hence the urgency of creating a phone app which can track people across these spaces). Deployed at the local geographical level, the organisations involved in tracing contagion can start by having a realistic risk assessment of the probabilities of people being infected by the virus – the “hotspots”.

With this knowledge, local populations and the organisations supporting them could be empowered to be as creative as possible in finding ways to minimise the possibility of infection against a more realistic estimation of risk. Not least, composite information at this scale should be available to GP networks and local Public Health and care organisations (we understand this not currently the case with data from the testing regime -though late in the day we hear that a Minister is indicating that testing may be devolved to local Public Health (Brindle, 2020)).

Being able to identify local "hotspots" for the virus helps us to understand better where pressure points can arise. For example, the ONS data brought into perspective the issues that travelling by London Underground will have for people whose normal journey to work takes them across an inner ring of places with a high propensity for contagion: “*Research published in BMC Infectious Diseases found that those*

³⁸ “*Moral hazard describes situations in which the costs of risky behaviour are not entirely borne by those responsible for that behaviour, so encouraging excessive risk-taking in the future*”. CLIFFORD, B. 2020. *Coronavirus pandemic puts the spotlight on poor housing quality in England*. The Conversation. Published April 28. Available: <https://theconversation.com/coronavirus-pandemic-puts-the-spotlight-on-poor-housing-quality-in-england-136453>. [Accessed April 29 2020].

³⁹ <http://ghpu.sps.ed.ac.uk/ethnic-minorities-covid-19-uk/>

using public transport during flu outbreaks were up to six times more likely to pick up an acute respiratory infection” (Nuki and Newey, 2020).

Other major cities can now see what they have to take on board for their public transport systems. By contrast with those in densely populated city cores, those on outer edges of the country and in rural areas can see that up to 17th April at least (because of the lag in the data) their propensity to catch the virus – though not ever zero – has been relatively low. But it should be instructive for all to see that it is *rarely zero and can change over time* – deflecting behaviours that might turn to complacency⁴⁰.

Something of the revealed *pressure map for NHS hospitals* might also be read off from the ONS data by local place. The highs and lows of the detailed maps show that the low hospital capacity utilisation rates on average come from a *binary distribution*. Some areas are under pressure. Others have spare capacity. Averages hide the realities on the ground. At last, we have the first ground truth map of the geographical reality – if only for COVID-19 deaths.

3.3 Easing Lockdown

3.3.1 Avoiding the second wave

As we said in our earlier paper, the process of planning to exit from lockdown, for politicians, must be almost as terrifying as the virus itself. The unlocking process is where the government has to make decisions about acting, and for each action there will be consequences. It is no longer just a question of contagion, NHS pressures and deaths. Now the damage to the economy and the drain on the public finances is rising sharply in profile. There is also growing consideration of the wider health and social care issues (Triggle, 2020), and the personal and social costs to people of the loss of their normal freedoms (McGee et al., 2020), but in all of this there is the challenging need to balance risk: *“Social distancing and other measures have slowed the spread to a point at which the impact of the disease is currently manageable. But cut the parachute too early, before the danger is averted, and the outbreak will accelerate again”* (Yates, 2020).

The current message is “abide by the rules of hard lockdown or face a second wave of the virus” (Davis, 2020). Trust in government, good information and public consent are vital for this to be observed.

The key strategic questions are still “when and how to begin to lift lockdown, and in what order to do it”? People are becoming mildly encouraged that the flattening of the curve has arrived and this is shifting day-to-day behaviour with claims that the lockdown is *“fraying at the edges”* (Pidd et al., 2020). Nevertheless, it seems that the time has arrived for government to admit that it is thinking about how to go about lifting the policy.

The challenge is that with lifting the lockdown on the agenda people might be encouraged to believe they can relax the strict behaviours. We have entered the terrain of ‘moral hazard’ (ECONOMIST, 2020): an example would be where some groups of people gather in large crowds (for example, in football stadia, at beauty spots or at an orchestral performance) with difficulties for social distance. On May 8, the government was clearly scared of people going out in large numbers (BBC, 2020b). The resulting contagion from being close to risk then spreads to others who have maintained compliance with the strict lockdown regime.

⁴⁰ Suggestions of an earlier easing of lockdown for these “low incidence” places are being resisted by Public Health commentators (Duncan Harrison, DPH, Blackburn with Darwen, Twitter). Allowing the least affected at present to make an early start toward lifting lockdown might allow them simply to catch-up with the rest through early entry to the “second wave” – a “levelling up” that would be highly inappropriate.

Moral hazard notwithstanding, there is need - in looking to lift lockdown - for a careful examination of where the damage, *here and now*, is at its most extreme and how an extended duration will produce pressure points demanding a response. This is not just in the economy but in people's lives. The position our previous paper took is that we should take the trouble to find out if there is the threat of a social 'breaking point' for a significant proportion of the more vulnerable population if the lockdown policy goes on too long. If this is the case, there is no long-run guarantee that the citizenry will uniformly accept a passive role in response to those higher order pressures that the state sees as its core agenda. For some, as the daily examples are beginning to show, there is no guarantee that acceptance – even with legal enforcement – will continue without pushback of some kind.

3.3.2 Lifting lockdown in context: re-spacing people's lives

Looked at through the lens of the local, the challenges of lifting lockdown can also become clearer. Carrying over many if not all of the restrictions into a context where people can go back to work, school and social life demands that we take a hard look at what the re-spacing of society and economy might actually mean in a variety of situations. We cannot be comprehensive here but we can offer a number of examples of how the challenges might appear across groups and places.

Take as an example the way changing the social distancing constraints might vary if people are allowed to go out more frequently and begin to be able to visit family or open space leisure. This single modification will play out very differently from group to group and place to place. For a middle-class family where the breadwinner(s) can work at home online and with a car, such a new freedom would allow them easily to extend their action space to include family members and consume non-crowded open space leisure. The car would function as a 'sealed bubble' from A to B.

For a family living in an inner urban area without access to a car and normally using public transport, easing the space constraint this way would see them obliged to transit and share COVID-19 risk, (with attendant risks for bus drivers and other transport staff (Wright, 2020)). Freeing up leisure space would from this perspective have a discriminatory impact. Recalling that the last group is likely to contain those who have suffered more severely from the effects of the virus and the impact of lockdown would suggest, once again, that a more nuanced approach is required beyond an all-encompassing Ministerial statement.

3.3.3 Gradual forms of opening up; Local issues to consider

Staged forms of opening up the economy nationally may also have much to learn from local experience.. If a public service (refuse tip) or retail reopening is undertaken piecemeal there is a risk that pent up demand will see people wanting to participate in large numbers with queues and the possibility of contagion. The reopening of recycling sites in Manchester on May 2nd resulted in significant traffic congestion, (even after imposing a form of rationing by number plates (Jenrick, 2020)). Greggs bakers abandoned a decision to test the market by reopening a selection of stores, fearing queues and disruption (BBC, 2020g).

A key consideration for reopening service facilities at a local level is, then, likely to be *absorptive capacity* if the aim is to avoid the contagion effects of queues. The recycling sites and the Greggs examples are likely to be repeated widely across the retail sector where ponded back demand meets limited supply and low absorption. It may be for this reason that on May 6th Germany announced that all shops could reopen, but that "*they will operate an "emergency brake" if there is a new surge in infections*" (BBC, 2020d).

These examples serve to show that the process of unlocking is terrifyingly complex, massively interconnected and may be highly discriminatory. This is not something that can be undertaken by simply saying that people can become mobile again. In the longer run, the challenges in the compressed social

and economic environments of the major cities are, for example, going to be way more difficult to solve than for the outer suburbs or the dispersed areas of the country.

Once again, a more nuanced and locally informed approach will be essential. Since, as we have already shown, the impact of COVID-19 has been sectorally, demographically, and spatially highly heterogeneous, the complexity of the problems we face in re-opening are enormous – perhaps even beyond our competence to manage more than piecemeal. Co-designing a flexible approach to tackle the extremes and releasing creativity in the local context is going to be vital.

3.4 Co-designing a flexible approach to tackle the extremes and release creativity

3.4.1 Meeting complexity with organisational variety

In dealing with a complex, sectorally and geographically ordered economic system; it should be clear that *variety* will be needed in the governance structures for lifting lockdown. Multiple and coordinated frameworks will be required. While the Prime Minister's statement of 30th April talks of a policy to "*get our economy moving*" (Johnson, 2020b), there also need to get local schools, local shopping centres, local civic society organisations – and above all – local social and family networks "going again". The level of governance/administration to be deployed for business sectors on the one hand and local places on the other will be very different, and central government cannot do it all.

A key question must then be: "who is to be granted agency to create recovery solutions in specific situations?". While the central authorities can set the national framework, it is vital that a degree of executive authority be granted; i) to those who understand the nature of the actors; and ii) that are positioned at the most effective geographical level of resolution to face the challenges: "*Councils have an unrivalled understanding of their populations and this must be drawn on if contact tracing and isolating is to be effective*" (Tuddenham and Ham, 2020). We are dealing here not just with releasing the lockdown but also with the potential deep recession that most commentators believe will follow.

The second thing needed will be *creativity*. Again, this cannot come exclusively from the centre. Much of it is going to have to arise in and from the real context where the action needs to be taken. Considering businesses as "sectors" of the economy may be too high a level of aggregation for the necessary creativity to be fostered in workplaces and customer-facing outlets. Small and medium sized businesses are those most highly threatened by the economic circumstances ahead, and sectoral measures may not be enough to cope with the pressures that they will face. Agency needs to be available at whatever level the best effectiveness in addressing the problem can be achieved.

3.4.2 Facilitating a more bottom-up perspective with appropriate data

For many of the problems to be confronted, policy will need a turn to consider the variable reality of outcomes on the ground. A more bottom-up approach would, for example, be vital across many of those *spaces of economy and society* that need to be restructured. To do this, there is also a need, as we suggested earlier, to shift the balance of the data series that dominate the current debate. As much information as possible needs to be made publicly available at a granular level. We need to know much more about what is going on at the lowest level of spatial aggregation available – consistent, of course, with protecting confidentiality.

The recent data series from the Office for National Statistics on COVID-19 deaths shows the way, but they show the past outcomes of contagion, not the current real-time risks and patterns. This provides data down to the MSOA (postcode) level inside Local Authorities. If *case data* were available (from hospital, 111 and

testing sites) at this level, hotspots and cold spots could be identified that could efficiently direct the first stages of contact-tracing. Not just this, people and businesses in local situations would have a more realistic basis for risk assessment – an antidote to paranoia, resistance, and to carelessness.

3.4.3 Multi-level measures to deal with the conditions of most vulnerable people and places

As our previous paper pointed out, the on-the-ground impact of the virus and lockdown ran across all the dimensions of local life, and not just those related to health. This is particularly the case for those elements in the population that have suffered more intensively from infection and the deaths associated with it – those who are already multiply deprived. The revelation of May 4th that, for families with children, 17% (2.4 million) of children are suffering from food shortages powerfully makes the point (Mathers, 2020).

The supporting organisations and networks normally available for people and families in this situation have also had to respond to the lockdown. The Local Authorities have carried on as best they can with a responsibility, not just to support their wider communities in general, but also having to deal with the desperate conditions of those who entered the crisis vulnerable and who have been worst hit by both by the virus and the constraints of lockdown.

For this group in particular, it is vital to have available both the information to understand their situation, and the *devolved resources and executive authority to intervene quickly*. This again demands a devolved approach. In a system of multi-level governance, the national, regional, and the local need to be harnessed together. In part this is happening (Universal Credit, £3.6M subvention to Local Authorities) but the claim is that the projected cuts (like the removal of the Local Authority special allowance for deprivation) is leaving local systems ill equipped to cope with the scale and severity of the crisis. Public Health, GP Networks and Local Resilience Forums⁴¹ are in place but as yet there seems to be no recognition of the critical importance of their role in moulding central policy to local conditions.

The speed and scale of the emerging crisis in the poorest areas (and the effects of lockdown on these bodies) in some local contexts must be overwhelming. Like the question of care homes, the conditions of the most disadvantaged (including many BAME groups: “*the risk of death involving the coronavirus (COVID-19) among some ethnic groups is significantly higher than that of those of White ethnicity*” (ONS, 2020a)) have come rather late to the national consciousness. Once again, there has been data blindness at the necessary spatial level. Having discovered the issue and, while the conditions for lifting lockdown are dominating the debate, there is a pressing need to get both the need for devolved powers and the seriousness of the issue onto the table before the Prime Minister makes his next policy proclamation from the centre.

3.5 Chapter bibliography

BARR, C., KOMMENDA, N., MCINTYRE, N., et al. 2020. *Ethnic minorities dying of Covid-19 at higher rate, analysis shows*. Guardian (UK). Published April 22. Available: <https://www.theguardian.com/world/2020/apr/22/racial-inequality-in-britain-found-a-risk-factor-for-covid-19>. [Accessed April 23 2020].

⁴¹ Local resilience forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. These agencies are known as Category 1 Responders, as defined by the Civil Contingencies Act.

- BBC. 2012. *Cameron pushes 'Yes' vote for elected city mayors*. British Broadcasting Corporation (BBC). Published April 23. Available: <https://www.bbc.co.uk/news/uk-politics-17808026> [Accessed March 25 2020].
- BBC. 2020a. *British Airways to cut up to 12,000 jobs as air travel collapses*. British Broadcasting Corporation (BBC). Published April 28. Available: <https://www.bbc.co.uk/news/business-52462660>. [Accessed April 28 2020].
- BBC. 2020b. *Coronavirus lockdown: UK 'should not expect big changes'*. British Broadcasting Corporation (BBC). Published May 8. Available: <https://www.bbc.co.uk/news/uk-52585373>. [Accessed May 8 2020].
- BBC. 2020c. *Coronavirus: Bank holiday warning to avoid beauty spots*. British Broadcasting Corporation (BBC). Published May 7. Available: <https://www.bbc.co.uk/news/uk-england-52574395>. [Accessed May 7 2020].
- BBC. 2020d. *Coronavirus: Germany reopens shops as lockdown is relaxed*. British Broadcasting Corporation (BBC). Published May 6. Available: <https://www.bbc.co.uk/news/world-europe-52557718>. [Accessed May 6 2020].
- BBC. 2020e. *Coronavirus: Government urges 'caution' on lockdown easing*. British Broadcasting Corporation (BBC). Published May 7. Available: <https://www.bbc.co.uk/news/uk-52568698>. [Accessed May 7 2020].
- BBC. 2020f. *Coronavirus: Rolls-Royce 'to cut up to 8,000 jobs'*. British Broadcasting Corporation (BBC). Published May 2. Available: <https://www.bbc.co.uk/news/uk-england-derbyshire-52514444>. [Accessed May 2 2020].
- BBC. 2020g. *Greggs U-turn over sausage roll rush fears*. British Broadcasting Corporation (BBC). Published May 1. Available: <https://www.bbc.co.uk/news/business-52500880>. [Accessed May 1 2020].
- BRINDLE, D. 2020. *Public health directors in England are asked to take charge of Covid-19 testing*. Guardian (UK). Published May 8. Available: <https://www.theguardian.com/world/2020/may/08/public-health-directors-take-charge-covid-19-testing-care-homes>. [Accessed May 8 2020].
- CLIFFORD, B. 2020. *Coronavirus pandemic puts the spotlight on poor housing quality in England*. The Conversation. Published April 28. Available: <https://theconversation.com/coronavirus-pandemic-puts-the-spotlight-on-poor-housing-quality-in-england-136453>. [Accessed April 29 2020].
- DAVIS, N. 2020. *UK can avoid Covid-19 second wave with test, track and trace, says Vallance*. Guardian (UK). Published May 5. Available: <https://www.theguardian.com/world/2020/may/05/covid-19-second-wave-may-be-avoided-with-track-and-trace-says-uk-science-chief>. [Accessed May 5 2020].
- ECONOMIST. 2020. *How to think about moral hazard during a pandemic*. Economist. Published April 25. Available: <https://www.economist.com/finance-and-economics/2020/04/25/how-to-think-about-moral-hazard-during-a-pandemic>. [Accessed April 30 2020].
- HAYNES, L. 2020. *Social distancing could keep UK COVID-19 deaths below 20,000*. GP Online. Published March 17. Available: <https://www.gponline.com/social-distancing-keep-uk-covid-19-deaths-below-20000/article/1677392>. [Accessed March 23 2020].
- HORTON, W. 2020. *British Airways At The Forefront Of Change For A Post-COVID-19 Airline World*. Forbes.com. Published May 3. Available:

- <https://www.forbes.com/sites/willhorton1/2020/05/03/british-airways-at-the-forefront-of-change-for-a-post-covid-19-airline-world/#40eaede7677c>. [Accessed May 3 2020].
- JENRICK, R. 2020. *Queues build up as some tips reopen for first time since lockdown*. ITN News. Published May 2. Available: <https://www.itv.com/news/2020-05-02/queues-build-up-as-some-tips-reopen-for-first-time-since-lockdown/>. [Accessed May 3 2020].
- JOHNSON, B. 2020a. *PM statement in Downing Street: 27 April 2020*. Prime Minister's Office (UK). Published April 27. Available: <https://www.gov.uk/government/speeches/pm-statement-in-downing-street-27-april-2020>. [Accessed April 27 2020].
- JOHNSON, B. 2020b. *Prime Minister's statement on coronavirus (COVID-19): 30 April 2020*. Prime Minister's Office (UK). Published April 30. Available: <https://www.gov.uk/government/news/prime-ministers-statement-on-coronavirus-covid-19-30-april-2020>. [Accessed April 30 2020].
- LACINA, L. 2020. *'The second wave is in our hands'- WHO COVID-19 briefing*. World Economic Forum. Published April 27. Available: <https://www.weforum.org/agenda/2020/04/27-april-who-briefing-unknowns-many-at-risk-lockdown/>. [Accessed April 28 2020].
- MATHERS, M. 2020. *Millions of children not getting enough food during lockdown*. Independent (London). Published May 4. Available: <https://www.independent.co.uk/life-style/health-and-families/coronavirus-food-children-hunger-lockdown-a9497166.html>. [Accessed May 4 2020].
- MCGEE, P., MURPHY, H. & BRADSHAW, T. 2020. *Coronavirus apps: the risk of slipping into a surveillance state*. Financial Times (London). Published April 28. Available: <https://www.ft.com/content/d2609e26-8875-11ea-a01c-a28a3e3fbd33>. [Accessed April 28 2020].
- MERRICK, R. 2020. *UK coronavirus death toll more than double hospital figure, new analysis suggests*. Independent (London). Published April 22. Available: <https://www.independent.co.uk/news/uk/politics/uk-coronavirus-death-toll-latest-update-new-analysis-covid-19-a9477761.html>. [Accessed April 23 2020].
- NEVILLE, S., DICKIE, M., COCCO, F., et al. 2020. *Empty non-coronavirus beds raise fears that sickest are avoiding NHS*. Financial Times (London). Published April 10. Available: <https://www.ft.com/content/d5ac0a79-6647-4f49-bb64-d1cc66362043>. [Accessed April 11 2020].
- NHS. 2020. *NHS steps up coronavirus fight with two more Nightingale Hospitals*. National Health Service, England. Published April 10. Available: <https://www.england.nhs.uk/2020/04/nhs-steps-up-coronavirus-fight-with-two-more-nightingale-hospitals/>. [Accessed April 15 2020].
- NUKI, P. & NEWAY, S. 2020. *How to avoid the spread of coronavirus when travelling on public transport*. Daily Telegraph (London). Published March 25. Available: <https://www.telegraph.co.uk/global-health/science-and-disease/coronavirus-public-transport-how-avoid-catch-travelling-advice-tubes/>. [Accessed May 8 2020].
- OECD. 2020. *Coronavirus special edition: Back to school*. OECD. Published May 5. Available: https://www.oecd-ilibrary.org/education/coronavirus-special-edition_339780fd-en. [Accessed May 5 2020].
- ONS. 2020a. *Coronavirus (COVID-19) related deaths by ethnic group, England and Wales: 2 March 2020 to 10 April 2020*. Office for National Statistics (UK). Published May 7. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/article/s/coronavirusrelateddeathsbyethnicgroupenglandandwales/2march2020to10april2020>. [Accessed May 7 2020].
- ONS. 2020b. *Deaths involving COVID-19 by local area and socioeconomic deprivation: deaths occurring between 1 March and 17 April 2020*. Office for National Statistics (UK). Published May 1.

- Available: <https://www.ons.gov.uk/releases/spatialanalysisondeathsregisteredinvolvingcovid19>. [Accessed May 1 2020].
- ONS. 2020c. *Deaths registered weekly in England and Wales, provisional: week ending 17 April 2020*. Office for National Statistics (UK). Published April 28. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/weekending17april2020>. [Accessed April 28 2020].
- PALMA, S. 2020. *Singapore struggles to slash coronavirus infections*. Financial Times (London). Published April 27. Available: <https://www.ft.com/content/956cd327-7279-429b-a9e6-b59b6e9d5ec9>. [Accessed April 27 2020].
- PAYNE, S. 2020. *Coronavirus: the hidden health costs of the UK lockdown*. Financial Times (London). Published April 26. Available: <https://www.ft.com/content/0ccaac50-854c-11ea-b555-37a289098206>. [Accessed April 26 2020].
- PIDD, H., MASON, R. & CARRELL, S. 2020. *Coronavirus lockdown in Lake District 'fraying at the edges'*. Guardian (UK). Published May 5. Available: <https://www.theguardian.com/world/2020/may/04/lake-district-coronavirus-lockdown-north-east-second-wave-risk>. [Accessed May 5 2020].
- REYNOLDS, E. 2020. *Sweden says its coronavirus approach has worked. The numbers suggest a different story*. CNN. Published April 28. Available: <https://edition.cnn.com/2020/04/28/europe/sweden-coronavirus-lockdown-strategy-intl/index.html>. [Accessed April 28 2020].
- SAMPLE, I. 2020. *More than 2m operations cancelled as NHS fights Covid-19*. Guardian (UK). Published April 26. Available: <https://www.theguardian.com/society/2020/apr/26/more-than-two-million-operations-cancelled-as-nhs-fights-covid-19>. [Accessed April 26 2020].
- SMITH, I. D. 2020. *It's time to unlock the lockdown and trust the common sense of the British people*. Daily Telegraph (London). Published May 4. Available: <https://www.telegraph.co.uk/politics/2020/05/04/time-unlock-lockdown-trust-common-sense-british-people/>. [Accessed May 5 2020].
- THOMAS, D. & PICKARD, J. 2020. *UK business leaders call for clarity over ending lockdown*. Financial Times (London). Published April 28. Available: <https://www.ft.com/content/5eea6b44-dd25-4ef2-91a4-b572e8123a0b>. [Accessed April 28 2020].
- TRIGGLE, N. 2020. *Coronavirus: What is the hidden health cost?* British Broadcasting Corporation (BBC). Published April 28. Available: <https://www.bbc.co.uk/news/health-52461034>. [Accessed April 29 2020].
- TUDDENHAM, R. & HAM, C. 2020. *Councils must be at the heart of contact tracing*. Local Government Chronicle. Published May 4. Available: <https://www.lgcplus.com/politics/coronavirus/robin-tuddenham-chris-ham-councils-must-be-at-the-heart-of-contact-tracing-04-05-2020/>. [Accessed May 5 2020].
- WRIGHT, R. 2020. *The London bus drivers on the coronavirus front line*. Financial Times (London). Published May 2. Available: <https://www.ft.com/content/bae97166-891d-11ea-a01c-a28a3e3fbd33>. [Accessed May 1 2020].
- YATES, C. 2020. *Coronavirus: is this the moment of maximum risk?* The Conversation. Published April 28. Available: <https://theconversation.com/coronavirus-is-this-the-moment-of-maximum-risk-137105>. [Accessed April 29 2020].

4.0 The Struggle towards a New Normal

This paper was released on 5 June 2020.

The Pandemic Summary Timeline – 13 May to 5 June 2020

13 May – It was now permitted to open garden centres, sports courts, and recycling centres. Two people could meet for recreation outdoors. It was possible to view houses that were for sale, and to carry out house moves.

14 May – It was reported that in the previous 24 hours there had been 126,064 tests.

15 May – The Office for National Statistics reported that between 2 March and 1 May 27% of all deaths had been care home residents.

16 May – The Children's Commissioner for England encourages teacher unions and the government to agree on the reopening of schools.

20 May – The Prime Minister assures Parliament that a track and trace system will be operational from June 1.

24 May – the Prime Minister announces a phased reopening of schools from June 1.

28 May – Contrary to the PM assurance of 20 May, Dido Harding states that track and trace in England will not be fully operational until the end of June.

30 May – People who have been shielding in their own houses are now allowed to leave the house from June 1.

June 1 – Up to six people can now meet outdoors, but not indoors.

June 5 – The ban on evicting rental tenants is extended to August 23.

June 6 – Dental practices can reopen under strict hygiene conditions.

June 10 – From June 13 people who are living alone can form a support bubble with another household. Plans for a summer school catch-up programme are announced.

June 11 – The collateral impact of the lockdown becomes evident – in April there was a 60% reduction in referrals to cancer specialists compared to April 2019. Conservative party back-bench MPs pressure the government to relax the two-metre social distancing requirement.

Source: Derived from Wikipedia⁴²

⁴² https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

4.1 Looking back at Paper 4

A climate of some optimism had arrived by June 5, when Paper 4 was written. Lockdown was lifted and the thoughts of commentators were beginning to turn to the wider issues of what Covid-19 might have changed only temporarily, and what changes might be powerful enough to construct some kind of “new normal”. Once again, there was a sense that we might be looking at the end of the crisis and could think beyond it. The opportunity was being taken to look towards some kind of “new normal”, Paper 4 looked more closely at the way “normal” pre-pandemic life had been disrupted by the arrival of Covid-19: how social distancing, shielding and re-bordering had made their way into people’s lives and how legislation on crowds and venues was taking away important parts of the social life of the population.

- By this point it was clear is that “*we are leaving it to the science*” would not play so strongly again, politics and power would be seen to infuse the entire process, and **openness and trust** would be vital in the case of any future need to have the population abandon their lifestyle to defeat the virus.
- A key moment influencing the willingness of the population fundamentally to change their lifestyle came at this point. The **demonstration effect** - when a number of high-profile individuals appeared to believe that they could evade the restrictions damaged trust critically. (*The Cummins affair is acknowledged to have had a huge effect on trust in government from this point forward*)
- This also where **cracks began to appear** in the “three podium” façade. The epidemiologists and SAGE were not so sanguine about privileging the need to restore the economy - warning of a second wave. (*The after-effects of the Chancellor’s “Eat Out to Help Out” campaign were later to prove them right*)
- At this point, the new approach to contact tracing by Serco and Deloitte was emerging - being described as an entirely **new “world class” centralised testing system** - based on using call centre techniques with associated websites for booking purposes (*we now know much more about 18,000 staff recruited ahead of a proper system for task allocation and the use of a long line of further sub-contractors*).
- The tracing element was the part that failed to perform to an adequate standard. A “**world class” app** was piloted and introduced to automate contact warnings (*We now know that this failed to live up to it early overblown claims and it now operates largely in the background*).
- Ambitious **targets for tests per day** became the dominant indicator for government reporting to the media as a way of demonstrating positive action (*This became the prime focus for the “three podium” meetings going forward - with continuing issues of overblown claims*)
- By June, data had arrived to confirm that much of the **death toll had been concentrated in the care home sector**, which had 27% of all 31,000 Covid-19 related deaths to that point. There had been serious lapses in relation to the care homes and there had not been the “protective wall” around them that the Secretary of State for Health had claimed (*government became more sensitive to the care homes issue from this stage on*)
- The arrival of an excess-deaths indicator showed how far Covid-19 policy was **causing collateral damage within the NHS**. Additional deaths were arising through the opportunity costs of having to dedicate the entire hospital service to the task of coping with the virus (*arising again as cases at the end the year exceed the peak of the first wave*).

- Concerns were already being raised in June about an **epidemic of mental health problems** to follow the worst stage of the pandemic itself. We were looking forward as summer lightened the mood but could not see at this point that the current crisis still had a long way to run (*dire warnings are currently being issued about a “tsunami” of mental health problems*)
- The arrival of June and the holiday season re-emphasised the devastating impact of lockdown and re-bordering on the **travel and tourism** sector as the prospect of the normal “holiday in the sun” effectively evaporated. On the home front, the devolved administrations took their own pathways in framing policy to deal with holiday travel.
- Better data from the ONS on deaths in May showed how the pandemic was playing out at a local (Medium Super Output Area - MSOA) level. By June, the **strong differentiation in the social and geographical incidence** of the pandemic could be shown as being associated with low pay, congested living conditions and general precarity in the conditions of life.
- As the Treasury's **furlough scheme** exerted a massive impact in suppressing the job and income loss from the lockdown phase of the pandemic, a substantial proportion of the nation's employment bill was now being paid for by government (*projected dates for winding down came and went and we are now looking at April 2121*).
- The mood of the time was reflected in the expectation by the government that people should **go back to work** wherever possible - while firms were to shoulder the responsibility for making workplaces ‘Covid-19 safe’⁴³.
- Despite the accumulation of evidence about differential social and spatial impact, there was to be no reorientation of policy in recognition of this. Central policy **continued on its pathway** on the assumption that a return to normal would provide the remedy.

It is only now, many months later, that reports from regulatory bodies like the National Audit Office (NAO) are revealing the full detail of what was done in these first months to cope with the crisis (NAO, 2020b, NAO, 2020a). The caveat that it is easy to be wise after the event is, of course, understood. But some of the things that were done in the March-June period of the pandemic served to lock the administration into a pathway that both *failed to deliver* and that *closed out other critical options*. We can see how the expenditure of £10 billion (as against only £875 million for the established local Public Health system) on a privatised, and multiply sub-contracted out, track and trace system (and yet more on an underperforming App), was a choice with huge ramifications for policy downstream. The Prime Minister had promised a working system in early June. In December 2020, we are still waiting for full functionality - tens of thousands of deaths and billions of pounds later. We are also hearing only now, with data to support it, about the scandal surrounding the acquisition of PPE in the first weeks of the crisis.

Key questions about this and other issues were there to be asked by June and flagged up by many commentators - but group think and a lack of strategic planning in dealing with the crisis led those in charge to turn deaf ears to them. The UK system of government and governance suffered a catastrophic structural and implementation failure in the early months of Covid-19. Yes, as Ministers argue in their defence; the speed and scale of the crisis at the outset was overwhelming. But, with so many missteps and U-turns following subsequently, it is hard not to conclude that this initial failure by government locked it into a path that undermined its ability to make course corrections once better evidence became available.

⁴³ <https://www.hse.gov.uk/coronavirus/working-safely/index.htm>

4.2 Short Term Policy and the Responses

4.2.1 Introduction: Vulnerability, security, and the struggle toward a new normal

So traumatic and worldwide has the experience of Covid-19 been, that a primary requirement after the initial lockdown is to prevent it happening again. In the short term, the key effort is to manage a return to some degree of post-lockdown normality in a way that does not risk large subsequent surges of infection and deaths. The risks are real, as seen in a secondary surge in Singapore, which initially was lauded as a positive example of initial virus control (Yeung and Yee, 2020). There are three elements that are important in managing lockdown: being able to understand that a surge is likely if unlocking takes place (the government SAGE advisory committee has seen some of its members worry that unlocking the UK too early could risk cases accelerating again (BBC, 2020j)); reducing the surge; and, responding to the event with a robust and sustainable policy to mitigate against any future outbreak.

Towards the end of May, the process of emerging from lockdown in the UK revealed that stresses were beginning to emerge and that these varied across the population and from place to place. As it went on, the lockdown arrangement was already 'fraying at the edges' and becoming a trigger for acrimonious debate of the kind absent during the early emergency phase. On May 20, with summer sunshine and temperatures, and a dilution of the "*stay home*" message, many UK coastal resorts were flooded with people and traffic to them was often gridlocked (BBC, 2020p), as it was also on the Bank Holiday Monday of May 25 (Binding, 2020). Anticipating the change in the rules for the following day, the weekend of May 30-31 saw large crowds at tourist locations. In the absence of open public toilets (O'Connor, 2020), leaving "*mounds of litter including used toilet roll and nappies at Yorkshire beauty spots*" (BBC, 2020q) – in itself a coronavirus health risk. This was also an issue across other European countries (Woodyatt, 2020).

There is much uncertainty about what the eventual social, economic, and political outcomes of the pandemic will be, but in the long run we need to consider how far human behaviour will change beyond responding to the needs of the immediate emergency and the subsequent recovery phase. In a crisis people can feel extremely vulnerable, often terrified, and look for anything that will make them feel less so: "*Consumers have been told for weeks it is safer not to leave the house - making them fearful about everyday activities, from shopping to drinking, that companies large and small depend upon*" (Hancock and Gray, 2020).

However, lockdown and keeping others at a distance (we discuss the confusing concept of 'social distance' later) comes with a high price. It also depends on commonly accepted behaviours to work. Should a vaccine be slow to emerge, only governments with strong enforcement powers could reasonably expect such an unnatural arrangement to be imposed without difficulty. Elsewhere, should it be needed, the willingness to shut down again may not see the same levels of compliance.

So, thinking from the short into the long term, will our society be one where the discipline of social distancing becomes part of normality, or will it only be acceptable as a necessary but temporary fix? The answer is critical because for the economy the ramifications for the transport infrastructure, the hospitality industry, tourism, sport, entertainment, school and college education, and our political systems are extraordinary (ECONOMIST, 2020d).

4.2.2 'Social distancing' a policy in evolution

4.2.2.1 *Issues of language and clarity*

How far, then, is it going to be feasible to adopt centrally imposed 'social distancing' as something for the 'new normal'? It is a policy instrument that has changed so many dimensions of economy and society and intrudes strongly on our regular life behaviours. To answer this question, more clarity is needed about the term "*social distancing*" itself. In strictly epidemiological terms it is about maintaining a safe physical distance between two categories of people - the infected, and those susceptible to infection. Even then, however, the science is not specific, hence it has been estimated at 2 metres for the UK, 1 metre in France⁴⁴, and 1.5 metres for Germany (Anon, 2020b). Adding the prefix 'social' to what is clearly understood as a distance measure, produces what Martin Bauer from the LSE has called an "*unfortunate choice of language*" (Aziz, 2020).

The World Health Organisation (WHO), the originator of the concept of social distancing, has acknowledged the problem, declaring that while maintaining physical distance is "*absolutely essential*" amid the global pandemic; "*it does not mean that socially we have to disconnect from our loved ones, from our family*". Indeed, at a news briefing on March 20, WHO decided not to continue using 'social distancing', choosing to use 'physical distancing' from that point on (Pallister, 2020).

Being much clearer about what is meant by the term in use (or changing it) is important in looking forward beyond the emergency phase. The recommended physical distance is scientifically and politically contested. This is significant, and if it could be reduced from two metres to 1 metre, it would significantly increase the carrying capacity of trains and buses and reduce the costs of changing the layout of offices. Unsurprisingly, businesses have been pressing for the promotion of 1 metre where; "*advocates say it could help businesses get back to work faster and help to kick-start the economy*" (Blanchard, 2020a).

On May 28 it was reported that "*The Prime Minister said the Scientific Advisory Group for Emergencies (SAGE) would review the policy after suggestions halving it to one metre could help pubs re-open and save thousands of jobs*" (Tolhurst, 2020). In this case, the science should help us resolve this 'distance' question in time. But will the science prevail? Looking forward, the simple metric of distance separation, will make a substantial difference to what the future economy might look like.

Putting the adjective 'social' in front of 'distance', however, takes things to another level. The 'social distance' between A and B, in regular usage, is a concept that has no physical space involved. It may simply mean that two people feel comfortable in the company of each other. It may mean that one person who chairs a meeting can control how others contribute. Before seeing it be redefined for virus protection it could relate to the social segregation between upper and lower 'classes' of people, or that between rich and poor. 'Social distancing', with this understanding, might make it sound as if people (groups) should stop communicating with one another and keep their 'social distance'.

Clearly, this was never the intention. In reality, there is a need to *preserve as much community as possible* in the crisis, even while keeping a physical distance between one another. The Thursday 'clapping for key workers' activity was a process by which people maintained physical distance from each other, while 'coming together' and being more 'socially close'. By this semantic means, the sharply defined instrument of 'physical distance' - keeping a certain measured distance from other individuals - sweeps into its orbit all those features that holistically configure life in a human society. Not least for young people whose lives depend so intensely on close interaction, this sanction is extreme. No wonder policies that require 'social spacing' by fiat have run quickly up against real life contexts where the social needs of a given situation

⁴⁴ <https://www.gouvernement.fr/en/coronavirus-covid-19>

might be deployed to justify some ‘reasonable’ or ‘understandable’ deviation from distancing rules. Going forward, this is going to be one of the hardest things to maintain.

4.2.2.2 *The importance of the “demonstration effect”*

Over the weekend of 23-24 May, lockdown tensions played out for real in the life of one of the architects of the policy, Dominic Cummings, and led to massively contested views about whether he broke the rules of social distancing or not. This led to diminishing public trust in the government, and an encouragement to the population to breach the general set of lockdown rules (BBC, 2020c, SKY, 2020b). It resulted, on May 26, in hostile press coverage and the resignation of a junior minister (Allegretti and Heffer, 2020). Even before this event, on May 21, it was reported that “*Confidence in the government in England has dropped since the lockdown was eased, with more than half of young adults no longer sticking strictly to the rules, according to a new survey. Researchers questioned more than 90,000 adults and found those under 30 most dissatisfied*” (SKY, 2020a).

Clarity of message and trust in those who design and enforce the rules is vital at every stage in a pandemic. Both have been significantly damaged by the Cummings episode (Martin, 2020). Regardless of the media bonanza that has surrounded the event, it makes the population at large much more wary about central messages for handling the virus going forward. It will have rebound effects in managing those vital behaviours in common should there be a second wave. If people in general begin to discard the critical importance *epidemiologically* of the need for physical (that is spatial) distance (Wood, 2020a), more cases and deaths may follow.

What has become clear is that the language and the clarity of the messages, and trust in those who are responsible for them, will be vital for moving forward into the ‘new normal’. What is equally clear is that “*we are leaving it to the science*” will not play so strongly again – politics and power will infuse the entire process, and openness and trust will play more strongly than opacity and a willingness to manipulate things for political ends. This tension was highlighted on June 2 with the Chair of the UK Statistics Authority sending a scathing letter to the Secretary of State for Health regarding the statistics cited by the government about Covid-19 testing:

“the figures are still far from complete and comprehensible ... The way the data are analysed and presented currently gives them limited value for the first purpose. The aim seems to be to show the largest possible number of tests, even at the expense of understanding. It is also hard to believe the statistics work to support the testing programme itself.” (Norgrove, 2020)

It was reported on 4th June that fully operational track and trace will not be in place until September (Marsh, 2020). A lack of trust in evidence and policy administration means that the future is likely to be worked out through individual and group behaviours, rather than by science-based policies directed from the centre.

4.2.2.3 *Differential scope for physical distancing in varying contexts*

From the very beginning of the pandemic there were vast inequalities in the way the ‘social distance’ message played out in real local contexts. Social inequality and position in the labour market can select for high levels of contagion. To make the pre-virus urban economic system work, it needed the transport workers, the health care assistants, the waiters and kitchen staff of the restaurants, the Uber drivers, the Deliveroo cyclists, the cleaners, the janitors, and the refuse disposal workers. It needed them in large numbers and close to the centre of cities and towns. This found them living and working in and coming from close networks that involved regular physical contact. Many of these people were members of the BAME population.

For a high proportion of them, working in the precarious labour market, staying home, and avoiding contact was not a viable option. Often facing delays and falling through holes in the Chancellor's support system, they had to go to work. Large numbers were the lowest paid key workers in the NHS and the care economy generally. They found themselves living in those parts of the housing market that offered limited living space and little scope for physically distanced movement. Public transport was the predominant mode of travel. For this heterogeneous vulnerable group as a whole, the lockdown requirement of the emergency was experienced very differently by comparison with those who could work from home, travel by car and find their recreation in a garden or available public space that was not quickly overcrowded.

What the virus event has done is to shine a spotlight on this core of generally low paid workers, where they tend to live, their cultural and ethnic variety and how they get to and from work. On June 2 Public Health England reported that:

"An analysis of survival among confirmed Covid-19 cases and using more detailed ethnic groups, shows that after accounting for the effect of sex, age, deprivation and region, people of Bangladeshi ethnicity had around twice the risk of death than people of White British ethnicity. People of Chinese, Indian, Pakistani, Other Asian, Caribbean and Other Black ethnicity had between 10 and 50% higher risk of death when compared to White British." (PHE, 2020)

This appears to be where the virus started its deadly track early and most intensely with a higher rate of deaths among those who contracted it. Covid-19 selects for the economically marginal, those suffering health issues and the living-space constrained across the population.

These sorts of differentials were not just a feature of the major urban growth centres. They were to be found at other points down the population and network density scale and outside the metropolitan core. These are places that have been experiencing long term generalised social inequality. Whole communities find it hard to find well-paid sustainable employment, and a high proportion of them were attached to the precarious labour market. In the so called 'left behind places' the prospects for maintaining the government's requirement for social distance also fell into more challenging contextual circumstances. Here too, the emerging evidence showed a high incidence of both Covid-19 cases and deaths.

The mapping of the ONS data for deaths from Covid-19 in early April (ONS, 2020) revealed a close visual correlation with high IMD (Index of Multiple Deprivation) scores in the older industrial regions of the north, and especially in the most deprived postcode areas within them. For people living in the poorest parts of the major cities, old industrial regions, cities of lower order in the urban hierarchy (Ghosh, 2020) and small towns and rural areas (Smith and Aguilar Garcia, 2020) the observed progression of Covid-19 has seen them as suffering greater exposure to risk.

The vulnerability of those living in multiply deprived towns and neighbourhoods matched that in the deprived parts of the major cities. On a global scale:

"The worldwide lockdown of economic activity inflicts most pain on those who can afford it the least. The deep and sudden downturn will inevitably set back the emerging world's success in lifting people out of poverty and intensify the deprivation many rich countries have seen grow since the global financial crisis." (FT, 2020)

Going forward, the prospects for the infection continuing and a possible second wave in these areas remains undiminished, and the features of close quarters living and dependence on public transport will remain (Staton et al., 2020). But on top of the direct effects of the virus, those places with an established history of unemployment and deprivation are also likely to have much less resilience to cope with increases in the scale of job insecurity and indebtedness that will follow. What we are discovering on a daily basis

under the pandemic is that health inequalities and this lack of resilience to economic shocks have left large numbers open to infection and death, and also shockingly vulnerable to the forthcoming economic recession (ECONOMIST, 2020c). Further months of lockdown impacting on local economies will thrust them still deeper into difficulty.

As we turn later to look into what things, after Covid-19, can change and what remain the same as before, allowing extreme inequality to persist as an embedded feature of the politico-economic system should be something that needs to change. Even the newspaper of big business, the Financial Times, argued in an editorial:

“The worldwide lockdown of economic activity inflicts most pain on those who can afford it the least. The deep and sudden downturn will inevitably set back the emerging world’s success in lifting people out of poverty and intensify the deprivation many rich countries have seen grow since the global financial crisis.” (FT, 2020)

4.2.2.4 *Shielding, lockdown and the older population*

It has also become clear that Covid-19 discriminates significantly by age (WHO, 2020). All the available data show that the over 65 group is both considerably more susceptible to infection and more liable to have serious outcomes. In some of the early modelling by the Imperial College group, chances of death from over-70s with Covid-19 were as high as 1 in 6. The curve of susceptibility declines sharply with decreasing age and children seem hardly affected at all. Reflecting this, the government advice to older people was more drastic. Two groups were identified: those known to the NHS as having serious co-morbidities⁴⁵ (including some younger people in this set); and the other was all people over the age of 70.

For the first group the requirement was to stay indoors (initially for a period of 12 weeks and there was a package of support available for them to do this) and for the second group there was advice to do the same and “*stay home*”. All this remained in place until a relaxation at the beginning of June that came as a surprise to the epidemiologists - albeit differentially across the ‘United’ Kingdom, with England (Booth and Mason, 2020) and Wales (BBC, 2020i) on June 1, Northern Ireland on June 8 (BBC, 2020h), and not at all yet in Scotland (Ross, 2020b).

For a significant number of older people – both with and without co-morbidities – the home that they would be required or advised to be “shielded” in has been a care home. A clear advantage of this was to place those most exposed to death in a safe environment “*shielded*” from the possibility of infection. However, this was an aspiration never adequately fulfilled in practice. Indeed, quite the opposite. In a very large number of care homes, the residents were directly placed ‘in harm’s way’ as – in order to “*Save the NHS*” – plans were operationalised (under Guidelines still in place) to move older patients from the acute hospital service to the care homes (McGuinness, 2020).

This was done at the point where hospitals were already known to be hotspots for Covid-19. There was no provision (or even at this point much availability of prior testing) for the virus. The tragic results of this policy in the level of deaths in care homes are now there for all to see. And this in spite of clear scientific warnings: “*Britain’s chief scientific adviser, Sir Patrick Vallance, has revealed he and other senior scientists warned politicians ‘very early on’ about the risk Covid-19 posed to care homes*” (Blanchard, 2020b).

As noted earlier, a key component in having the population at large act in common to dramatically change their lives in response to a public health emergency, is the degree of trust they place in those who provide and enforce the rulebook. The history of the policy for vulnerable older people in the UK (not in terms of

⁴⁵ The fact that people who have one disease have one of more other diseases.

theory, but in the way it was operationally applied under the aegis of the government making the rules), has done considerable damage. There is also an issue of stigmatisation. As Michel Skapinker observed: “*Covid-19 has reinforced the idea of older people as frail and vulnerable ... While there has been justified anger about high mortality rates in UK care facilities, the majority of older people are not in care homes. Lady Altmann points out that there are 13m UK pensioners and 400,000 care home residents*” (Skapinker, 2020). Older people generally are being drawn, whether they are or not, to consider themselves as especially vulnerable and for many this can have negative emotional and behavioural consequences.

For older people outside the care home sector, compliance with the stay home and shield requirement has been high (Cavendish, 2020). Their contribution to the spread of infection in the community has been minimal, but it must be also acknowledged that their isolation has also reduced their infection levels, and therefore their impact on emergency medical services. There is a story to be told about how vital local community support has been in supporting this group but – unlike other aspects of the pandemic experience – we have no data to reveal it. There are important lessons to be learned about how to support a vulnerable population from informal local networks.

Looking to the longer term, protecting the old and isolated will surely rank more highly considering the political fallout of what has been revealed. But there are wider issues to address. The backlog of medical treatments (Triggle, 2020) created by the early instruction to “protect the NHS” and the likely follow-on of the mental health issues (Jacobs, 2020) caused by isolation have yet to be properly measured, but they will be considerable.

4.2.3 Bounding, re-bordering and legislative controls

4.2.3.1 From “*stay home*” to “*stay alert*”

Against the backdrop painted in the previous section, the State will retain its legislative powers to control the movement of people and how they can come together in groups. In effect, by government decree the original boundary for mobility was set as people’s front door – the behaviours of Dominic Cummings show that this is one of the hardest constraints to sustain. Yet again, however, the picture is fluid. Evidence emerged from France, Germany and Spain, showing that people coming together in groups (even where they do their best to observe physical distancing) is allowing the virus to take off again (Henley, 2020). Even during the emergency stage when the legislation was based on the strong “*stay home*” message, the difficulties of interpreting what might be exceptions was beginning to loosen compliance⁴⁶.

Beyond the emergency, as the general message shifted to “*stay alert*” and the clarity of what was required lost its sharpness, the boundary at the front door was progressively eased – throwing up inevitable fears that the public health message about distancing would be progressively weakened. By 1st June with government allowing groups of “*up to six*” to come together and pressing for schools to open in a limited form (with essential workers already back at work), the tight legislative household bounding still recommended by many epidemiologists rapidly decaying. To the surprise of most and without a prior justification, even the “*shielding*” group were told they can leave their homes, although some in that group have become so concerned about contagion that they remain locked within their accommodation (Cuddy, 2020). There has been a strong reaction from the epidemiology community (BBC, 2020) that this loosening has no scientific justification and will produce a second infection wave.

The sheer confusion now surrounding the messages has further induced a loss of confidence. People were on the move anyway, as we suggested earlier, and it looks to some as if the ‘government has given up’.

⁴⁶ It was this that pervaded the Cummings case discussed earlier – a draconian policy that became capable of ex-post justification on “reasonable grounds” according to the Prime Minister.

This is a dangerous message with around 1,500 new cases a day, and with track and trace only just underway early in June, and possibly not expected until July (Cellan-Jones, 2020) or even September. In response to this, government has moved more firmly to suggest that; “*if there’s any uptick in any particular locality or setting, we’ve got the ability to take targeted measures*” (Walker, 2020). This has been rebutted by the Association of Directors of Public Health whose claim is that the staff, training and technology is simply not yet in place to suppress any hotspots that arise (ADPH, 2020).

4.2.3.2 *Tightening cross-border and internal boundary movements*

Stronger bordering is still very much part of the government policy package, if not so stringently now at the personal, household level - then more so at the international level. From June 15 all incoming passengers to the UK will, for example, be required to spend 14 days in quarantine (BBC, 2020n), although the agreement with the Irish Republic that this will not be imposed on them could lead to a ‘Dublin Dodge’⁴⁷. Responding to the UK quarantine, many governments are demanding the same for travellers for the UK. This, in effect, closes the population of the UK into the national space. While enforcing re-bordering is complex, the logic is clear: inter-country transmission of Covid-19 remains a serious threat that could undermine domestic efforts to control contagion at home. In this respect, the UK has been a late starter with criticism about why it was not enforced much earlier (Grierson, 2020).

Even within the UK itself, devolved powers have come into play to control movements between the autonomous regional spaces. Borders have appeared, for example between England and Wales (Morgan, 2020), to control internal movements between jurisdictions that have a different view of lockdown. Even where there is no legislative power of enforcement, some of the more tourist-attracting counties and sub-regions of the UK (even though they are suffering serious economic hardships) have been actively seeking to dissuade travellers from visiting during the lockdown process (BBC, 2020p). There is a danger that as targeting hotspots becomes a more prominent dimension of policy and, as such areas are identified, more of these locally promoted ‘keep away from us’ behaviours may be seen to emerge. This is a trend being observed elsewhere and with potentially dark political ramifications:

“...colour-coded zones have been rolled out to control the virus in Malaysia, Indonesia, Northern Italy and France; the strategy was also considered as a model for biocontainment in the White House in early April (Cancryn, 2020). As of early May, India has divided its 1.3 billion people into a patchwork of green, yellow and red zones, with different freedoms and restrictions based on each.” (Slobodian, 2020)

While, from a public health perspective, local action in areas targeted for intensive action represents an entirely sensible and well-trying epidemiological strategy, there is a danger that stigmatisation and exclusion might follow. This approach is already being picked up by some commentators on the libertarian right in terms that see; “*the colour-coded zones*” as “*the blueprint for a new political economy*” – one that allows the well-off people to avoid the contagious “*red zones*”, and to pursue their (hopefully) virus-free lifestyles (Slobodian, 2020).

Overall, then, as the constraints on individual (but not yet family) movement and interaction are loosened, the barriers to movement at higher spatial scales are still in place. The population, instead of being housebound, is being ‘boxed-off’ (or in geographical terms ‘re-bordered’) at other levels. Under the ‘old

⁴⁷ “*There are claims that visitors or returnees may be able to make use of a “Dublin dodge,” since arrivals from the Republic of Ireland will be exempt from the quarantine. In theory they could travel from anywhere and transit via the UK’s near neighbour.*” MINIHANE, J. 2020. *Has the UK just canceled summer by imposing a 14-day quarantine?* CNN. Published June 4. Available: <https://edition.cnn.com/travel/article/uk-quarantine-summer-vacations-coronavirus/index.html>. [Accessed June 4 2020].

normal', the holiday in the sunshine was, for a large share of the population and across most socio-economic groups, close to the top of the consumer preference schedule. The new border controls, along with the difficulties airlines and the travel industry (BBC, 2020s) face in meeting the safety requirements for the virus, make this a more limited option going forward (ECONOMIST, 2020b). New social distancing practices mean that beaches may have space rationed for tourists (Hope, 2020). For the summer of 2020, home-based holidays look to be the only option available, although "safe" corridors are being put in place bi-laterally by some countries to keep things going (Smith, 2020).

But here again there is the issue of physical distancing and crowds. To nobody's surprise, and anticipating the loosening due on 1st June, English beaches, beauty spots and holiday resorts were crowded in the last weekend of May. Absent the European resort holiday, this will possibly be the pattern for foreseeable future. While small family units will no doubt do their best to comply with the distancing rules, large numbers of discrete family groups coming together at what are, by definition, a selective group and often space-constrained, high tourism value locations will *constitute a crowd*. Perhaps the best that can be expected, epidemiologically, in a staycation (BBC, 2020f) home summer, is the arrival of bad weather! But by the same token, who will be happy to queue for a long time outside a supermarket in the pouring rain? Pushing the infection rate to as low a level as possible before a loosening that would shift public behaviour to take on more risk was surely the only solution – though an increasingly challenging one. There is a need to plan immediately for a second wave.

4.2.3.3 *Closing venues for audiences and avoiding crowds*

There is clear evidence that coming together in crowds provides an environment of high contagion possibility. For example, there was the spinoff impact of the Cheltenham Race Meeting and the Liverpool Atletico Madrid football match on the rapid spread of infection in the early days of the pandemic (Tucker and Goldberg, 2020). In addition to crowded beaches, there are crowds where the coming together is a key part of the sought-after experience like football matches, pop concerts, cultural events, and other performances. There are crowds that simply arise from pinch points in movement flows – tube station platforms, congested trains, airport arrivals and departures, streets surrounding football grounds. There are crowds that are hoped for by their sponsors but not planned, such as political meetings, social groups around a particular agenda. There are crowds that simply happen, where individuals and small groups all independently choose the same location such as the country town high street in a tourist location.

This is a special challenge for infection control under any circumstances. The devices of "*stay home*", keep a physical distance and do not cross a border line are the key parts of the preventive armoury. But loosen one or all of these and crowding becomes possible. This is especially the case where prior closure has led to there being pent up demand for an event or service and where the alternatives are limited. We commented in our previous paper on the early attempts at opening refuse tips and fast-food outlets and have referred above to beaches on hot Bank Holiday weekends.

We are currently at the threshold of a new situation where, as lockdown is loosened, not just basic social distancing, but also the crowd will become a pressing issue. While football and cricket grounds and performance venues have remained closed, open air spaces with a potential to draw large crowds are increasingly becoming more open under the government's recognition of open-air leisure as a permissible activity. "*Going back to work where you can*" resulted in trains and platforms becoming crowded. The imposition of crowding controls immediately impacts the carrying capacity of the busiest parts of public transport. For example, Transpennine Express Trains, on May 28, were advising that "*Due to social distancing guidelines, capacity on our services will be greatly reduced and seating on board our services*

will be limited to around 15 to 20 people per carriage”⁴⁸. Reducing capacity to around 15% has potentially insurmountable implications for revenue as well as for the convenience of such a slimmed down service for passengers.

The relaxation for coming together in open spaces has some epidemiological justification as having a low transmission potential, but not where crowds are drawn together in ways that make physical distancing impossible. The dilemma is obvious. Its resolution surely cannot be through legislative fiat from the centre. In the case of sports and entertainment venues there is activity to find crowd-reducing devices. Controlled pre-booking is one such and is becoming widely used where it can be successful, but not where ‘buying ahead’⁴⁹ sees slots quickly foreclosed to new joiners⁵⁰. Shifting the focus from coming together in place to video viewing formats is another, there is anguish from theatres when the need for physical spacing means they cannot fill enough seats to be commercially viable (Bakare, 2020).

4.2.3.4 Moving to more local responsibility

Overall, then, this would suggest that a move in the next phase would be to preventive policies based on target groups and on certain local areas. This is also beginning to appear from the announcement on 27th May that the Public Health Directors in the Strategic Local Authority areas are to have a responsibility for track and trace (this came as a surprise, and most had no capacity or equipment in place to carry out the task⁵¹). Regardless of the miss-step, this shows the way things are likely to evolve for the longer run. Track and trace for both older people and for spatially targeted hotspots, many in the more deprived areas is likely to be a feature of the normal policy portfolio (PA, 2020a). Should this turn out to be the case, it would be reasonable to conclude that, for most people, behaviours as close as possible to the ‘old normal’ would be likely to emerge – that is should no dramatic second wave overtake the population as a whole.

Should this be so, as just discussed, crowding and congestion will immediately become an issue, and despite people doing their best to “*stay alert*”. A huge concern is that should the fears of the public health specialists be realised, a second or even third lockdown might become necessary. Re-capturing compliance on the basis of trust in government is going to be much harder to achieve.

4.3 Transiting to the “New Normal”

4.3.1 Returning to work and travelling again

The Chancellor of the Exchequer is seeking to taper-off financial support for employees from August onwards (Ross, 2020a), and employers will have to contribute an increasing share of the costs of furloughing their workers. This is the point, then, at which it looks like the ‘new normal’ will need to take shape. However, keeping even a defined *physical distance* between people will find itself running counter to so many normal human expectations about close contact between humans as social beings.

At a very personal level, how feasible it will be - beyond the emergency stage - to stop shaking hands or give a loved one a hug? How long will the fear of being near to people and to the virus override our cultural

⁴⁸ <https://tpexpress.co.uk/travelling-with-us/keeping-you-safe>

⁴⁹ A process not dissimilar to the ticket agencies that purchased large numbers of theatre tickets and then resold them at a much higher prices: BBC. 2019. *Andrew Lloyd Webber tackles West End ticket touts*. British Broadcasting Corporation (BBC). Published November 21. Available: <https://www.bbc.co.uk/news/entertainment-arts-50494729>. [Accessed March 24 2020].

⁵⁰ News stories now speak of refuse tips being booked up until Christmas

⁵¹ Tweet 28th May by Dominic Harrison Director of Public Health, Blackburn with Darwen.

<https://twitter.com/bwddph?lang=en>

norms and instincts about our fellow citizens? (Butterly, 2020). At some point the fear that it is not 'safe' to go on a bus, train, or plane will have to diminish (Tett, 2020). The decision-making dilemma is imposed on each traveller – to delay arriving at work and travel in compliance with government rules for distancing or risk a crowded service and arrive at work on time. Images of crowded travellers (Guardian, 2020) show how the need to work can override compliance, also with images of only a minority wearing the (now required) mask.

In the week of May 18 this tension was being played out for real in London. There was an increasing return to work, with recommendations from the government not to use public transport but use cars (which are subject to both the congestion charge and often punitive parking costs in London). The rail and bus services set a challenge to those travelling – it articulates as; 'to conform to physical distancing our services will have only 10-25% capacity. It is up to you as a traveller to observe physical distancing, and not to travel if the service is crowded'. So how did it play out? People discounted for the risk and largely 'got on with it'.

Such fears were further played out in the first week of June with terrified parents afraid to let their children re-enter a school (Coughlan, 2020): a school is no longer a place of enjoyment and learning but can look like a hostile battlefield with PPE-clad staff minimising contact between children.

For some groups within society, as just discussed, going back to work is not of the same order. Many in the lower paid jobs of the service economy have been going to work and travelling from the very beginning. For them, however, the return to work generally will only exacerbate the problems of crowding and congestion in the dense travel environment of the central cities. Over time, measures have been coming into place to try to control pressure points and overcrowded trains and buses – but at an additional cost to the providers that will have to come from somewhere. In the future people and providers will be doing their best to make a fundamentally unsafe system as usable and as safe as possible (Staton et al., 2020). How this works out will depend heavily on what evidence emerges of second wave effects. Without a second wave, the expectation may be that normality will arrive in a modified form as behaviours alter choices of transport modes, times of travel and working arrangements between home and place of work wherever that choice is available.

4.3.2 Business taking greater responsibility

Across the board, businesses trying to survive will be doing their best to make us feel safer. This will range from shops detailing staff to manage spacing and queues to an expansion of pre-booking for 'slots' – in a shop, at the hairdressers, in a National Park car park and so on. Digital solutions by smartphone are in development to book, go away and come back at an agreed entry time. This scale of industry involvement in trying to make clients safe to keep revenues flowing is especially the case for the airlines. For example, not just in the physical spacing challenges, but in the interpersonal relationships between passengers and cabin crew, where cabin crew are no longer dressed fashionably, but regard passengers as biohazards (Hardingham-Gill, 2020). The challenge of ensuring that passengers getting onto a plane feel they are not going to be infected is already being taken up. For example, passengers will be made aware that modern airplanes have air conditioning filters that are 'operating theatre standard' (Topham, 2020).

Maintaining distances respecting the 2.0 metre separation will be difficult to achieve and will have an enormous influence on load factors – but some reassurance to passengers would be essential. It would be the case that "*queues at security would also become painfully longer*⁵². For example, an aircraft with 189

⁵² Something brought starkly into the public awareness with the long queues in the House of Commons where Members of Parliament had to socially distance when voting SYAL, R. 2020. *UK parliament union threatens to strike after MPs' queueing chaos*. Guardian (UK). Published June 4. Available:

seats would result in a queue of at least 380m for a single security lane" (Powley et al., 2020). But travellers did accept that and much more burdensome personal and baggage inspection after 9/11. Distance and the confidence of travellers will play powerfully into airline strategies for survival and there will no doubt be some form of consolidation in the industry. But people will want to travel by air and countries (especially those heavily dependent on tourism) will want border restrictions to move from the extreme to the reasonable as soon as possible.

4.3.3 Changing personal risk profiles

The lockdown experience has been extreme, and the population have responded remarkably well by taking it so seriously. But, as noted above, there will be a changed perception of risk and some sort of negotiated order as lockdown is eased. The extreme form still may appear again, but hopefully at a time when much more is known about what to do than appears to be the case at the moment (Gurumurthy and Leadbeater, 2020). Even then, it will probably be in a form significantly mediated by the first experience. An effective and available vaccine may arrive, as could therapies to reduce the most serious outcomes. People's risk profiles will shift. In the longer run, most may consign the event to memory, but others will carry the trauma throughout their lives, not the least being the hospital and care home workers who have been witnesses to the carnage (Propper et al., 2020).

For the long-run view, then, we need to ask whether Covid-19 (and its potential successors) can really be strong enough to sweep away a key part of our social makeup and allow physical spacing for all of us to be dictated by the threat of viral transmission? Given the systemic impact of the virus, and fears of massive long-term damage, there is, of course, an inevitable temptation to clutch at straws where there is a future free of the virus – say through a vaccine. However, we are in the era of contested scientific forecasts, with the forecasting models often being black boxes developed in previous epidemics that bear little resemblance to the current one.

In this situation, any positive message attracts instant attention. Hence headlines in the popular mass-readership press that "*Researchers in Singapore said that there will be no more cases of the deadly bug in the UK by September 30*" (Jeffrey, 2020), and "*Coronavirus pandemic could be over in the US by November 11: Scientific model predicts virus will continue its steady decline with NO second wave*" (Ruiz, 2020) present (to the naïve reader) an unequivocal promise that it is almost over. Few readers will go further to consider the 'ifs and buts' that qualify the estimates of a statistical model. Reality may prove to be different. But, short of the techno-fix, there is a need to think carefully about physical distancing and what we might have to forego for it to be built into normality.

Given past experience of humans and risk, it is possible that - like those who farm on the flanks of volcanoes, they know will erupt sometime – many people will absorb the existential crisis and then go back to who we are, pushing the known risk to the back of the consciousness. For example, back in 2008 it was noted that our computer keyboards and mice etc. are toxic petri dishes of bacteria and viruses. However, it is unlikely that we sanitise such equipment on a regular basis. Add to that our ubiquitous smart phones which are perfect transmission devices for a virus (Jones, 2008). And (as of 5th June), there was no news of any major wide-spread secondary surge of infection emerging.

Each progression toward the 'new normal' is, then, an experiment with claims and counter claims about where we are on the Covid-19 path and what threats arise as lockdown is lifted. But already many risks are being discounted as sheer exhaustion and economic pressure becomes stronger as the call of something

<https://www.theguardian.com/politics/2020/jun/04/uk-parliament-union-threatens-action-after-mps-queuing-chaos>. [Accessed June 5 2020].

closer to normal life gets louder, or as the possibilities of a mobility-constrained future become too horrible to contemplate (Coates, 2020). Hope for the vaccine is present but uncertainties about its timing, effectiveness and availability keep it as being uncertain as a fix. A lack of clarity exists about when (or if) a vaccine may be available: end of 2020, 2021 or 2022 (Phelamei, 2020, Anon, 2020a). So, people are moving on. This is a process being played out by individuals, families, communities on the ground – but sadly without inadequate information, and in the face of a worrying loss of clear leadership from the government.

In the face of this, it might be sensible to anticipate more limited changes in people's general behaviour. There may be a risk of over-reading the extent to which the present phase of the pandemic will condition the shape of change for the long run future. This is not to say that there will not be a real impact going forward. We are yet to see the full extent of the damage the pandemic will have wrought on economies and societies across the globe, but it has already been an event of sufficient magnitude to suggest that this is a turning point in history (ECONOMIST, 2020d), and the effects will be somewhere on a spectrum from substantial to cataclysmic.

4.3.4 Realistic appetites for changing the system as a whole

Those who live in rich liberal democracies have become used to a world where (subject to financial capacity) they were able to mostly do what they wanted – shop this afternoon – no problem. Holiday in Barcelona – no problem. Go to a museum – no problem. This was an experience virtually across the whole population. As we emerge from the emergency phase, the recollection of this will come into play as people take a position on what we want the future to look like.

With the realisation that the prevailing economic system for the past 40 years might, of itself, be a powerful factor in perpetuating pandemic risk; *how far would people be willing to go in changing it?* What if the price of greater security really is far less international travel and holidays (Hancock, 2020), a fear of travelling on public transport (With trains and buses largely re-nationalised with the government paying massive subsidies to keep services running for key workers (BBC, 2020b)), a more limited range of goods on the supermarket shelves and a reluctance to return to physical shopping (BBC, 2020l), higher taxes to support disadvantaged groups, a willingness to adopt behaviours that dramatically shift both work and social life and so on?

Significantly, discourses that have centred on the power of market forces efficiently to get us what we want to have had little to offer when it has come to the pandemic impacts. For much of what we have learned to enjoy in our lives up to the crisis, market disciplines and globalisation have kept prices down and choices up. What appetite will there really be for major change across the population? What might we not want to lose from the “old normal” is a question still to be explored?

It may not just be those who put the economy at the centre of their concerns – from an investment and business point of view – that will want the old order still to be dominant. It may also be a generation of free-to-choose consumers who liked what they used to have. While the drive for less vulnerability, or to put it in the opposite sense, greater security, will play powerfully in defining the shape of the ‘new normal’; it will be far from an uncontested position once the primary threat dies down. Some will press for a degree of necessary change but as far as possible for a re-boot of the previous system.

The shape of the short-term is going to have a powerful effect, but it may not turn out to be as powerful as was thought initially. It is too early to be sure that there will be a move towards an entirely new approach to economy and society for the next period. Some will be looking at nothing less than a revolution, where governments are mandated constantly to adjust things to mitigate against future viral surges, including the mobility of people, the capacity of the infrastructure to cope with socially distanced mobility, with potential

economic effects. Others will see all this as too damaging to the machine for wealth creation, and others will look for the opportunities to move to a better future in a very different system (Thornhill, 2020).

After all, returning to the ‘previous normal’ means returning to the same depths of inequality, poverty, and societal divisions of before – that surely is not what is desirable. This will be further modulated by the behaviours and fears of people, for example, on 15 May the police were advising people not to rush into the road to avoid walking too close to other people. The risk of being run over by a car is greater than catching Covid-19 as you pass people (Odling, 2020). There will also be uncertainty about a willingness to conform to a new permissions-based society – leaving behind the entitlements and freedoms of the so-recent past – even if, as part of the price, inequality remains high.

4.4 Conclusions: The Emerging “New Normal”

4.4.1 Bringing forward and accelerating pre-virus tendencies

Given the enormous complexity that we face, what can we usefully say about the future? As pointed out in the first paper in this series, the pandemic will serve to *pick up trends already emerging* before its arrival and accelerate their entry into mainstream economy and society. One such is the rise in the importance of the Nation State. This was inevitable, of course. The State is where constitutional responsibility for the health of the people resides and where the levers of power exist to close down borders and have people ‘locked down’ and forced to stay indoors - although this is not always the case, and there is not (as of March 30) such severe lock-down conditions in Sweden (Savage, 2020). It was the locus of the first tool in the box to stop the rampant transnational and internal transmission of the virus. Before the pandemic struck, there were already tendencies toward greater nationalism. Politically, this was already in play on the US under Trump and in the UK with Brexit. What the virus has done is to lend greater emphasis to this and to the shift toward more protectionism, localisation of production and tougher frontier controls (Rachman, 2020). How far we should expect these to persist is a question of fluid political movements and too difficult to answer at this stage.

In concert with this inward-looking shift came a querulousness about globalisation. It seems already clear that the international supply chains we had before the crisis – now in close-down – will not be coming back in the same form we had in the past. Again, before the crisis, there was already a debate about the need to “re-balance” supply chains - driven increasingly by the geopolitical tensions between the USA and China. Critical shortages of key drugs and items of medical equipment on the arrival of the pandemic, served to highlight the existence of critical vulnerabilities. While just-in-time methods drove efficiencies into the global market economy, they also weakened the ability of national states to absorb major shocks like Covid-19. Globalisation is too embedded to disappear, but there will certainly be a significant amount of rebalancing coming in the future.

As part of the reaction to the crisis, personal liberties have been set aside in ways capable of challenging the entire political democratic order. Before the pandemic, we had already been warned to become wary of the arrival of what Shoshana Zuboff has called *Surveillance Capitalism* (Zuboff, 2019). With the prospect of track and trace and potentially of immunity passports in response to Covid-19, we have seen an opening to what – if we are not very careful – could be a step jump in the ability of the State to see into our lives and control our basic freedoms.

The ability of centrally controlled surveillance states like China to control the spread of the virus has captured widespread attention at a time when, as noted in this paper, it has been much harder for governments to control the behaviour of their citizens beyond the emergency stage. While targeted approaches to infection control for selected groups and “hotspot” places can be hugely effective, they can

also be co-opted to political agendas that stigmatise and segregate. Going into the future, the watchword has to be vigilance that data security, the protection of individual privacy and natural freedoms of association and of movement should be returned to the status quo ante after the emergency has gone.

4.4.2 Changing positions on trust and governance

What has happened is truly shocking, although for those who have retained jobs and financial well-being through the pandemic, the trauma may quickly recede in its intensity. The virus is affecting economy, society, and politics in significant ways, and in the short term. A real shock, however, has been to see how *powerless the established support structures have been* and how apparently irrelevant the politics of the immediate past have proved to be in facing the crisis. Left wing-right wing ideologies and leave-stay (membership of the EU) have looked like sideshows while government and politicians of all shades have sought to come to terms with Covid-19. One thing that can be expected to play through strongly, will be the need for more *responsive and effective government* at all levels of the politico-spatial system. In the UK case, the virus has, for example, starkly exposed the limitations of a highly centralised political system framed against the dominant perspective of the national capital (Harris, 2020).

The governments we rely on to protect us from challenging things have been found scrambling first to understand what is happening, and second to find and practically deliver ways to protect us from the ravages of an invisible, fast-moving biological predator. Confidence in being around other humans has been shaken by fear of infection, and people everywhere have been deluged with uncertainty about their jobs, their livelihoods, and their mortality. Governments of all hues across the globe have come under intense scrutiny to see how well they lead their people out of the event and there is considerable heterogeneity in national approaches to learn from. The same has been true of the transnational bodies. This is still ongoing and will be that way for the foreseeable future.

Now that it has our attention, the WHO⁵³ is emphasising that this virus may be around for a long time, and possibly may become endemic, as well as the possibility of other viruses and transmissible diseases 'waiting in the wings'. There will be more unprecedented global events and ongoing uncertainty. It is inconceivable that such an event would pass without provoking a substantial shift in the views of the population about what they would not want to see in the future and what they might imagine as topics for discussion about what that future should look like. Perhaps the biggest changes in relation to Covid-19 will be not so much in the 'virus-proofing' constraints on people, as in the arrival of new mindsets and new world views that will shape the politics of the future.

4.4.3 Re-valuing the State and public service

Some views, though, may have changed already. The pandemic has not been a context where governments could just 'leave it to the private sector, they will get us out of it' (though the UK government has tried this in some critical areas like testing – and now track and trace - with dubious results). While in the short term the business sector provided help in areas such as manufacturing ventilators, in the medium term the business community will (being innovative and entrepreneurial) see opportunities to profit from opportunities that arise. For example, in exploring how to produce internationally recognised coronavirus 'immunity passports' (Venkataramakrishnan, 2020). It has been down to the State, the NHS, and the public purse to rescue people from early disaster. Short term, it has fallen to the much-maligned public sector to take the lead. The concept of *public value* (in the sense of 'what the public values') is perhaps going to

⁵³ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

experience a much-needed revival as societies need to re-design a future with security and sustainability at its heart.

On the other side of the pandemic, ‘the public’ will have had the opportunity to review more knowledgeably what it actually values and in what order of priority, and the outcome of an inevitable public enquiry into the pandemic may provide some salutary lessons. Clapping for the NHS and for care staff more generally will hopefully have shaped the way the public goes on to see where all the ‘heroes’ should be positioned in the hierarchy of rewards for contribution to the national good. On May 22 even the person who initiated the weekly clapping asked for it to be stopped because it was becoming too politicised: “*it has divided opinion: while some feel empowered and encouraged by the gesture, others think it is patronising*” (PA, 2020b). The list of ‘heroes’ has been expanding from the initial NHS workers, to care home workers, bus drivers, train staff, teachers, shopworkers, and more as we understand more how massively interconnected our society is. This is one area where it seems already reasonable to anticipate a ground swell of public support for substantial change.

As evidence of this, the first moral challenge emerged on May 20 when some of the NHS ‘heroes’, who were overseas workers and who had been at the forefront of emergency care in the hospitals, found that there was no clear ‘thank you’ from the government. Quite the reverse: “*It has emerged that the Home Office did not specifically review the charges beyond exempting on a one-year extraordinary basis both those whose visas were due to expire before October from that fee and the £400 surcharge, which will rise to £625 a year each later this year*” (Busby, 2020). One day later and the government made a humiliating ‘U-turn’ (BBC, 2020r). What was more surprising than the U-turn was the ‘tin ear’ displayed by the government in promoting the charge and not realising the potential public backlash. We can expect more debates about just who is entitled to what and who will pay for the ‘heroes’ labour market – not least if a hard Brexit settlement is forced through.

4.4.4 Changes in consumer preferences

A little easier to grasp is that consumer preferences are going to change because some of what was readily available before will not now be on offer or will be prohibitively priced - cheap overseas holidays for example. Our consumer society will not disappear, but the shape of its component elements will surely shift. There will be cases where widely consumed past pleasures will be available only for those able to afford premium prices in a world where the production possibilities and revenue prospects for business have been profoundly re-modelled.

It is not just the consumers that might have become more risk averse, facing uncertain futures. Business too will have revised its risk profile to discover that some activities will lead them to exposure and where a very wide range of investment possibilities will be shrouded with uncertainty as the old economy gives stumbling way to the new. Cruise ships and hotels (Ziady, 2020), tour companies (BBC, 2020t), pubs and restaurants (Wood, 2020b), theatres and concert halls (Mazelis, 2020), airlines (Powley et al., 2020) and airports (Powley and Pickard, 2020), shopping centres (Blackley, 2020) (and consumer retail behaviours (BBC, 2020m)), have been failing, or scrambling to survive. Many businesses are being seen to take the opportunity to restructure and shed labour against a general redundancy backdrop that avoids them being singled out, such as 9,000 jobs shed by Rolls Royce (BBC, 2020k), P&O Ferries (1,100 jobs (BBC, 2020g)), Virgin Atlantic (3,000 jobs (BBC, 2020o)) and British Airways (12,000 jobs (BBC, 2020a)). Others will follow.

GDP growth at a compound rate of 3 percent per annum – the desired norm of the past liberal marketplace – may have to give way to something more modest but hopefully still positive (or even be reappraised as an indicator). The global reach of opportunity that powered the past four decades is going to experience significant change and standard business practices like just-in-time across global sourcing networks are

not going to be the same. Much of what is going to change for business and for people as consumers is about wholly new geographies of production, trade, consumption, and the movement of people in their work and home lives.

4.4.5 Re-thinking the city

The big cities were 'where it was at' for the modern world - *in two contrasting senses*, as it has now turned out. The city was accepted to be the driving engine of creativity for the new economy. Theory provided the rationale. Coming together in dense interconnected networks to achieve economies of agglomeration and interaction, was seen as the engine of big city creativity and growth. The national economy would be driven forward by these integrated city hubs. Over the 19th and 20th centuries, cities continuously sucked in people and power from the regions, with the electronic telegraph that spawned the development of the head office (Standage, 1998), and then with high-speed trains that pulled the long-distance travellers into the orbit of the primate city. In turn, the global head office further empowered the mega-city, with corporate headquarters being in close proximity to major aviation hubs. Cities then became 'smart' (McFarlane and Söderström, 2017), 'sustainable' (Van Heerden et al., 2020) and 'knowledge intensive' in the era of the Internet of Things ... and then, suddenly; they became 'where Covid-19 is at' (Ghosh, 2020).

With hindsight, we discover that the mega-city - the driving geographical heart of the Neoliberal world order - turned out to be a *perfect propagation chamber* for Covid-19 and that systemic inequality within it predisposed a large share of the population to the worst outcomes. What until recently was seen as a 'smart city', using the Internet of Things to manage the compressed and crowded spaces of the city, has suddenly become a 'contagious city'. This is something unlooked for that - as we move to the 'new normal' - we will have to take on board. Already some of the bright new ventures of six months ago have been swept away. For example, "*Google's sister firm Sidewalk Labs has scrapped a plan to build a smart city in Canada, citing complications caused by the Covid-19 pandemic*" (Wakefield, 2020).

Even this early, movements are afoot within the cities to re-think things - as people have tasted working from home, have taken to bicycles, have seen what clean air looks and feels like, have experienced traffic free spaces. In the case of New York:

"Amid the wreckage there are shards of hope. Some are warming to the possibility that a city that became so overheated in this cheap-money era — a bastion of billionaires, ensconced in Hudson Yards — might now undergo a pandemic-induced reset. Cheaper rents may eventually make the city more accessible for a new generation, who will put spaces to use in ways their elders can scarcely imagine." (Chaffin, 2020)

This is far too big for us to take on board here, and it will be the subject of a future paper. We can be sure that in the emerging 'new local' there is certain to be a major debate about where the mega-city sits in the overall economy, how its massive internal inequalities can be addressed, what it should look like aesthetically and ecologically, and what role it can or cannot be expected to play in moving toward a more inclusive, sustainable world.

4.4.6 Taking the global and sustainability dimensions seriously

Global events and global outcomes demand globally coordinated responses. This is where the understandable national and local emergency actions need to morph into a globally coordinated effort as things develop. This is not just about the virus but about the potentially devastating economic collapse that will follow it. Pulling up the drawbridge nationally (as seen with the chaotic nature of countries with different approaches to quarantining travellers (BBC, 2020d, Burrige, 2020)) will not save humanity from future biohazards any more than from the world in economic turmoil that lies ahead.

To this point, the international bodies that so quickly stepped up to address the Financial Crisis of 2008-9 have been particularly challenged to respond. The breakdown in trust in multilateral organisations led to the US withdrawing its support for the WHO, with the WHO not willing (for fear of what China would do) to acknowledge that Taiwan was a world leader in its response to Covid-19 (Sung, 2020). The United Nations has made little visible impression. As the pandemic progresses around the world, we are already in a situation where many countries in the Global South are finding that the *economic shock has arrived before the virus has taken hold* facing populations that have no economic resilience with an existential threat to their very survival. Coronavirus for them is just another disastrous event that may undo decades of poverty reduction (ECONOMIST, 2020a).

As of 5th June 2020, the official estimates showed 6.66 million cases of Covid-19 and 392,000 deaths worldwide⁵⁴. Compare these to Malaria (in 2018 there were 228 million cases and 405,000 deaths (WHO, 2019)), deaths in wars⁵⁵, deaths from starvation (9 million in 2019⁵⁶). Against these, Covid-19 does not rank as such a major issue, but it came with the shutdown of the world economy, making it potentially far more lethal in its overall impact. So, from the global viewpoint, we are in one sense all in this together, and in another not at all.

And then there is global warming and the climate emergency. Disastrous as Covid-19 may be, it is surely unthinkable that ordinary citizens everywhere will not begin to grasp how fully integrated we all are in a globally connected ecosystem and how neglecting the health of the planet can follow through into each and every household. We have seen in the air quality everywhere, the observable effects of reduced vehicle and aircraft emissions. However, while there was brief celebration at the massive reductions in pollution in China (Chen et al., 2020), the pollution rapidly reappeared as the Chinese economy was unlocked, and assessing the balance of pollution gains is complex:

“Distinguishing the pollution changes caused by the lockdowns and their subsequent relaxations from other factors, such as weather and chemical interaction of pollutants, is complex. Spring is the most polluted season in western Europe in normal years, owing to the start of the agriculture cycle which causes ammonia emissions that go on to form particles over cities.” (Carrington and Kommenda, 2020)

Economic and social practices are not all becoming a ‘new normal’ in a simplistic manner. Even a switch to more online activity may even *increase pollution* unless it is managed well. The online society and economy is a voracious user of energy for their massive data centres (Munshi, 2020, Adalbjornsson, 2019). A switch to online clothes buying may save in our fuel costs travelling to a shop, but delivery (usually in vans with dirty diesel engines) also consumes fuel. We need, then, to understand better the energy and environmental impact of changing consumer behaviours before we can make any claim that we are being environmentally friendly.

Will the fear of coronavirus contamination drive us back, for example, to single use plastic bottles, or can an innovator find a compound for drink bottles that is both compostable and clinically clean (resistant to bacteria and viruses)? There are already concerns over rising levels of PPE (Personal Protective Equipment) such as face masks in the seas (BBC, 2020e), which has stimulated the innovators to develop

⁵⁴ <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6> displays the current situation

⁵⁵ <https://www.statista.com/chart/20699/estimated-number-of-deaths-in-selected-warzones/>

⁵⁶ <https://www.theworldcounts.com/challenges/people-and-poverty/hunger-and-obesity/how-many-people-die-from-hunger-each-year>

compostable PPE (Andrews, 2020). There is a huge potential in the innovative power of business, society, and community to address the multiple problems in front of us (Wakeford, 2020).

We have just learned in a very direct way through the Covid-19 experience that our neighbour's health affects us – whether locally; nationally or globally. Global health, it turns out, contributes to our own health. We need to take this lesson further to address the health and sustainability of the *global ecosystem* – on which we all ultimately depend: the work that the our zoos undertake in maintaining biodiversity is under extreme threat as some of the major zoos risk going out of business (Ingram, 2020). After the pandemic experience, there would hopefully be greater support for massive State supported strategic investment, adding up across nations to a global response - a Green Deal or, in Mazzucato's terms, a Green Direction with Green Innovation⁵⁷.

Covid-19 has reinforced how socially interdependent we are. There have been some positives. For young people, if for nobody else, it must surely be clear that the 'old normal' in relation to health, social inclusion and the global environment will get us into trouble in all sorts of ways. Perhaps following the disaster of the virus, the threat to us cannot be dissected into climate, marine, atmosphere, or food supply. These are all massively interdependent. The progression to some form of 'new normal' involves an incredibly complex set of issues not something solved by just 'less travel' or 'less food waste'. The need is for a mobilisation of all our learning and skills in a concerted and co-designed programme that acknowledges the complexity and dynamism of the system we are trying to influence and finds those domains within it where we know enough to be creative and entrepreneurial in fixing them.

4.5 Chapter bibliography

ADALBJORNSSON, T. 2019. *Iceland's data centers are booming—here's why that's a problem*. Technology Review. Published June 18. Available:

<https://www.technologyreview.com/s/613779/icelands-data-centers-are-booming-heres-why-thats-a-problem/>. [Accessed June 23 2019].

ADPH. 2020. *ADPH Presidential Blog: A time for steady leadership, careful preparation and measured steps*. Association of Directors of Public Health. Published May 31. Available:

<https://www.adph.org.uk/2020/05/adph-presidential-blog-a-time-for-steady-leadership-careful-preparation-and-measured-steps/>. [Accessed May 31 2020].

ALLEGRETTI, A. & HEFFER, G. 2020. *Coronavirus: PM hit by resignation as battle over fate of adviser Dominic Cummings grows*. Sky.com. Published May 26. Available:

<https://news.sky.com/story/coronavirus-minister-resigns-over-dominic-cummings-lockdown-trips-11994758>. [Accessed May 26 2020].

ANDREWS, L. 2020. *'World's first' plastic-free coronavirus visor that can be composted in your garden goes on sale at 50p per mask*. Daily Mail (London). Published June 2. Available:

<https://www.dailymail.co.uk/sciencetech/article-8380879/Worlds-plastic-free-PPE-composted-garden.html>. [Accessed June 4 2020].

ANON. 2020a. *Coronavirus vaccine update: Importance of Covid-19 drug, current status*. Business Standard (India). Published June 2. Available:

https://www.business-standard.com/article/health/coronavirus-vaccine-update-covid-19-vaccine-current-status-from-patanjali-to-moderna-china-oxford-gilead-more-120052800157_1.html. [Accessed June 3 2020].

⁵⁷ <https://marianamazzucato.com/research/green-innovation/>

- ANON. 2020b. *Germany plans to extend social distancing rules until July 5th*. Theloca.de. Published May 25. Available: <https://www.thelocal.de/20200525/germany-plans-to-extend-social-distancing-rules-until-july-5th>. [Accessed May 27 2020].
- AZIZ, S. 2020. *Why 'physical distancing' is better than 'social distancing'*. Al Jazeera. Published March 30. Available: <https://www.aljazeera.com/news/2020/03/physical-distancing-social-distancing-200330143325112.html>. [Accessed April 6 2020].
- BAKARE, L. 2020. *UK could become 'cultural wasteland' due to coronavirus, say leading artists*. Guardian (UK). Published April 26. Available: <https://www.theguardian.com/world/2020/apr/26/uk-could-become-cultural-wasteland-due-to-coronavirus-say-artists>. [Accessed April 27 2020].
- BBC. 2019. *Andrew Lloyd Webber tackles West End ticket touts*. British Broadcasting Corporation (BBC). Published November 21. Available: <https://www.bbc.co.uk/news/entertainment-arts-50494729>. [Accessed March 24 2020].
- BBC. 2020a. *British Airways to cut up to 12,000 jobs as air travel collapses*. British Broadcasting Corporation (BBC). Published April 28. Available: <https://www.bbc.co.uk/news/business-52462660>. [Accessed April 28 2020].
- BBC. 2020b. *Coronavirus: Bus firms face struggle as lockdown eases*. British Broadcasting Corporation (BBC). Published May 12. Available: <https://www.bbc.co.uk/news/uk-england-52621747>. [Accessed May 12 2020].
- BBC. 2020c. *Coronavirus: Cummings row raises fears over future of lockdown*. British Broadcasting Corporation (BBC). Published May 25. Available: <https://www.bbc.co.uk/news/uk-52793991>. [Accessed May 26 2020].
- BBC. 2020d. *Coronavirus: France reveals reciprocal quarantine plans for UK arrivals*. British Broadcasting Corporation (BBC). Published May 23. Available: <https://www.bbc.co.uk/news/uk-52781812>. [Accessed May 23 2020].
- BBC. 2020e. *Coronavirus: French alarm at Covid-linked Med pollution*. British Broadcasting Corporation (BBC). Published May 26. Available: <https://www.bbc.co.uk/news/world-europe-52807526>. [Accessed June 4 2020].
- BBC. 2020f. *Coronavirus: Government urged to change advice to 'stay local'*. British Broadcasting Corporation (BBC). Published June 1. Available: <https://www.bbc.co.uk/news/uk-england-dorset-52875612>. [Accessed June 2 2020].
- BBC. 2020g. *Coronavirus: P&O Ferries plans to axe 1,100 staff*. British Broadcasting Corporation (BBC). Published May 11. Available: <https://www.bbc.co.uk/news/uk-england-kent-52625025>. [Accessed May 11 2020].
- BBC. 2020h. *Coronavirus: People shielding allowed outdoors from 8 June*. British Broadcasting Corporation (BBC). Published June 1. Available: <https://www.bbc.co.uk/news/uk-northern-ireland-52874529> [Accessed June 1 2020].
- BBC. 2020i. *Coronavirus: People shielding in Wales allowed outdoors from Monday*. British Broadcasting Corporation (BBC). Published May 31. Available: <https://www.bbc.co.uk/news/uk-wales-52867183>. [Accessed May 31 2020].
- BBC. 2020j. *Coronavirus: Risk in UK lockdown easing too soon, warn scientists*. British Broadcasting Corporation (BBC). Published May 30. Available: <https://www.bbc.co.uk/news/uk-52858392>. [Accessed May 30 2020].

- BBC. 2020k. *Coronavirus: Rolls-Royce to cut 9,000 jobs amid virus crisis*. British Broadcasting Corporation (BBC). Published May 20. Available: <https://www.bbc.co.uk/news/business-52723107>. [Accessed May 20 2020].
- BBC. 2020l. *Coronavirus: Shoppers 'may be reluctant' to return*. British Broadcasting Corporation (BBC). Published May 26. Available: <https://www.bbc.co.uk/news/business-52804512>. [Accessed May 26 2020].
- BBC. 2020m. *Coronavirus: Shopping may never be the same, says M&S*. British Broadcasting Corporation (BBC). Published May 20. Available: <https://www.bbc.co.uk/news/business-52724901>. [Accessed May 22 2020].
- BBC. 2020n. *Coronavirus: UK quarantine plans and £1,000 penalties confirmed*. British Broadcasting Corporation (BBC). Published June 3. Available: <https://www.bbc.co.uk/news/uk-52907229>. [Accessed June 3 2020].
- BBC. 2020o. *Coronavirus: Virgin Atlantic to cut 3,000 jobs and quit Gatwick*. British Broadcasting Corporation (BBC). Published May 5. Available: <https://www.bbc.co.uk/news/business-52542038>. [Accessed May 5 2020].
- BBC. 2020p. *England beaches gridlock caused by cars 'from all over country'*. British Broadcasting Corporation (BBC). Published May 20. Available: <https://www.bbc.co.uk/news/uk-england-devon-52742519>. [Accessed May 20 2020].
- BBC. 2020q. *Litter and toilet roll left at Yorkshire beauty spots*. British Broadcasting Corporation (BBC). Published May 31. Available: <https://www.bbc.co.uk/news/uk-england-52867696>. [Accessed May 31 2020].
- BBC. 2020r. *NHS fees to be scrapped for overseas health staff and care workers*. British Broadcasting Corporation (BBC). Published May 21. Available: <https://www.bbc.co.uk/news/uk-politics-52761052>. [Accessed May 21 2020].
- BBC. 2020s. *Quarantine rules a 'killer blow' for travel sector*. British Broadcasting Corporation (BBC). Published June 4. Available: <https://www.bbc.co.uk/news/business-52917425>. [Accessed June 4 2020].
- BBC. 2020t. *Specialist Leisure Group collapses into administration*. British Broadcasting Corporation (BBC). Published May 22. Available: <https://www.bbc.co.uk/news/uk-england-manchester-52776657>. [Accessed May 23 2020].
- BINDING, L. 2020. *Coronavirus: Britons urged to 'use common sense' as beaches and parks packed on hot Bank Holiday Monday*. Sky.com. Published May 26. Available: <https://news.sky.com/story/coronavirus-police-called-to-large-group-gathering-as-britons-flock-to-beaches-during-hot-bank-holiday-11994363>. [Accessed May 26 2020].
- BLACKLEY, N. 2020. *Expert Blog: Future of UK Shopping Centres in doubt as COVID-19 impact adds to their problems*. Nottingham Trent University. Published May 6. Available: <https://www.ntu.ac.uk/about-us/news/news-articles/2020/04/future-of-uk-shopping-centres-in-doubt-covid-19-impact>. [Accessed May 6 2020].
- BLANCHARD, S. 2020a. *Government scientific adviser says Britain's two metre social distancing rule is unnecessary and based on 'very fragile' evidence*. Daily Mail (London). Published May 22. Available: <https://www.dailymail.co.uk/news/article-8339837/Government-scientist-says-2m-social-distancing-rule-based-fragile-evidence.html>. [Accessed May 23 2020].
- BLANCHARD, S. 2020b. *SAGE warned the Government 'very early on' in Britain's coronavirus outbreak that care homes would be COVID-19 hotspots, chief scientific adviser reveals*. Daily Mail

- (London). Published April 27. Available: <https://www.dailymail.co.uk/news/article-8261149/SAGE-warned-Government-early-care-homes-risk-COVID-19.html>. [Accessed April 27 2020].
- BOOTH, R. & MASON, R. 2020. *Easing Covid-19 shielding in England 'risks second wave'*. Guardian (UK). Published June 1. Available: <https://www.theguardian.com/world/2020/jun/01/easing-covid-19-shielding-in-england-risks-second-wave->. [Accessed June 1 2020].
- BURRIDGE, T. 2020. *Coronavirus: UK holidaymakers 'welcome' in Portugal*. British Broadcasting Corporation (BBC). Published June 3. Available: <https://www.bbc.co.uk/news/business-52900531>. [Accessed June 3 2020].
- BUSBY, M. 2020. *Home Office failure to scrap NHS migrant surcharge sparks anger*. Guardian (UK). Published May 20. Available: <https://www.theguardian.com/politics/2020/may/16/home-office-prit-patel-failure-to-scrap-nhs-migrant-surcharge-sparks-anger>. [Accessed May 21 2020].
- BUTTERLY, A. 2020. *Coronavirus anxiety: How to cope with life after lockdown*. British Broadcasting Corporation (BBC). Published May 11. Available: <https://www.bbc.co.uk/news/health-52443108>. [Accessed May 11 2020].
- CANCRYN, A. 2020. *Kushner's team seeks national coronavirus surveillance system*. Politico. Published April 8. Available: <https://www.politico.com/news/2020/04/07/kushner-coronavirus-surveillance-174165>. [Accessed April 8 2020].
- CARRINGTON, D. & KOMMENDA, N. 2020. *Air pollution in China back to pre-Covid levels and Europe may follow*. Guardian (UK). Published June 3. Available: <https://www.theguardian.com/environment/2020/jun/03/air-pollution-in-china-back-to-pre-covid-levels-and-europe-may-follow>. [Accessed June 4 2020].
- CAVENDISH, C. 2020. *The old are not equally vulnerable to Covid-19*. Financial Times (London). Published May 8. Available: <https://www.ft.com/content/1daf4e40-9046-11ea-bc44-dbf6756c871a>. [Accessed May 10 2020].
- CELLAN-JONES, R. 2020. *Whatever happened to the NHS contact-tracing app?* British Broadcasting Corporation (BBC). Published June 5. Available: <https://www.bbc.co.uk/news/technology-52938660>. [Accessed June 5 2020].
- CHAFFIN, J. 2020. *Can New York avoid a coronavirus exodus?* Financial Times (London). Published May 26. Available: <https://www.ft.com/content/a313a40c-b046-4b11-b302-41d9f347cddb>. [Accessed May 27 2020].
- CHEN, K., WANG, M., HUANG, C., et al. 2020. *Air pollution reduction and mortality benefit during the COVID-19 outbreak in China*. The Lancet. Published May 13. Available: [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30107-8/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30107-8/fulltext). [Accessed June 4 2020].
- COATES, S. 2020. *After The Pandemic: Britons think commuting to work and holidays abroad will change significantly after coronavirus*. Sky.com. Published June 1. Available: <https://news.sky.com/story/after-the-pandemic-britons-think-commuting-to-work-and-holidays-abroad-will-change-significantly-after-coronavirus-11998344>. [Accessed June 1 2020].
- COUGHLAN, S. 2020. *Coronavirus: Primary schools back but mixed picture on turn-out*. British Broadcasting Corporation (BBC). Published June 1. Available: <https://www.bbc.co.uk/news/education-52854688>. [Accessed June 1 2020].
- CUDDY, A. 2020. *Shielders face dilemma: Should I go outside or not?* British Broadcasting Corporation (BBC). Published June 2. Available: <https://www.bbc.co.uk/news/uk-52879091>. [Accessed June 2 2020].

- ECONOMIST. 2020a. *The great reversal: Covid-19 is undoing years of progress in curbing global poverty*. Economist. Published May 23. Available: <https://www.economist.com/international/2020/05/23/covid-19-is-undoing-years-of-progress-in-curbing-global-poverty>. [Accessed May 31 2020].
- ECONOMIST. 2020b. *Lonely planet: What awaits tourists when they re-emerge from lockdown?* Economist. Published May 30. Available: <https://www.economist.com/international/2020/05/30/what-awaits-tourists-when-they-re-emerge-from-lockdown>. [Accessed May 31 2020].
- ECONOMIST. 2020c. *Not quite all there: The 90% economy that lockdowns will leave behind*. Economist. Published April 30. Available: <https://www.economist.com/briefing/2020/04/30/the-90-economy-that-lockdowns-will-leave-behind>. [Accessed May 10 2020].
- ECONOMIST. 2020d. *The world after covid-19: Margaret MacMillan on covid-19 as a turning point in history*. Economist. Published May 9. Available: <https://www.economist.com/by-invitation/2020/05/09/margaret-macmillan-on-covid-19-as-a-turning-point-in-history>. [Accessed May 10 2020].
- FT. 2020. *How to help the poorest through the lockdowns*. Financial Times (London). Published May 3. Available: <https://www.ft.com/content/e851e3a2-8bbd-11ea-9dcb-fe6871f4145a>. [Accessed May 4 2020].
- GHOSH, R. 2020. *Rethinking the city: urban experience and the Covid-19 pandemic*. Verso. Published April 7. Available: <https://www.versobooks.com/blogs/4648-rethinking-the-city-urban-experience-and-the-covid-19-pandemic>. [Accessed April 13 2020].
- GRIERSON, J. 2020. *UK government under fire after 'big influx' of Covid-19 cases from Europe revealed*. Guardian (UK). Published May 5. Available: <https://www.theguardian.com/world/2020/may/05/just-273-people-arriving-in-uk-in-run-up-to-lockdown-quarantined>. [Accessed May 6 2020].
- GUARDIAN. 2020. *London underground packed as services cut to curb Covid-19 spread - video*. Guardian (UK). Published March 25. Available: <https://www.theguardian.com/world/video/2020/mar/24/london-underground-packed-as-services-cut-to-curb-covid-19-spread-video>. [Accessed March 24 2020].
- GURUMURTHY, R. & LEADBEATER, C. 2020. *Four coronavirus futures*. NESTA (National Endowment for Science, Technology and the Arts, UK). Published May 13. Available: <https://www.nesta.org.uk/blog/four-coronavirus-futures/>. [Accessed May 17 2020].
- HANCOCK, A. 2020. *Europe reopens but travel operators fear tourists will stay away*. Financial Times (London). Published May 17. Available: <https://www.ft.com/content/55cfbbd9-7a35-42d8-b769-495d912972cb>. [Accessed May 19 2020].
- HANCOCK, A. & GRAY, A. 2020. *Tempting back the terrified: shops and restaurants try to reassure customers*. Financial Times (London). Published May 15. Available: <https://www.ft.com/content/074bf736-a874-42a4-9e08-041bad7faf83>. [Accessed May 15 2020].
- HARDINGHAM-GILL, T. 2020. *Qatar Airways cabin crew to wear hazmat suits*. CNN. Published May 19. Available: <https://edition.cnn.com/travel/article/qatar-airways-full-body-cover-protection/index.html>. [Accessed May 20 2020].
- HARRIS, J. 2020. *The pandemic has exposed the failings of Britain's centralised state*. Guardian (UK). Published May 25. Available:

- <https://www.theguardian.com/commentisfree/2020/may/25/pandemic-failings-centralised-state-councils-coronavirus>. [Accessed May 25 2020].
- HENLEY, J. 2020. *Covid-19 clusters emerge as lockdowns ease across Europe*. Guardian (UK). Published May 28. Available: <https://www.theguardian.com/world/2020/may/28/covid-19-clusters-emerge-as-lockdowns-ease-across-europe>. [Accessed May 28 2020].
- HOPE, K. 2020. *Greece anxiously prepares for socially distanced beach life*. Financial Times (London). Published May 15. Available: <https://www.ft.com/content/380f6cb4-d061-48f4-8150-d4bd593d312f>. [Accessed May 17 2020].
- INGRAM, S. 2020. *British zoos are starving to death – and the most historic of all may be about to slip away*. National Geographic. Published May 22. Available: <https://www.nationalgeographic.co.uk/animals/2020/05/british-zoos-are-starving-to-death-and-the-most-iconic-of-all-may-be-about-to-slip>. [Accessed June 5 2020].
- JACOBS, E. 2020. *Grief, lockdown and coronavirus: a looming mental health crisis*. Financial Times (London). Published May 31. Available: <https://www.ft.com/content/7aa6a0b4-6607-47d3-8340-2b2c9fcacfa2>. [Accessed May 31 2020].
- JEFFREY, M. 2020. *Coronavirus study predicts exact date UK will be have no cases of Covid-19*. Scottish Sun. Published May 24. Available: <https://www.thescottishsun.co.uk/news/5627231/coronavirus-study-predicts-date-uk-coronavirus-free/> [Accessed May 25 2020].
- JONES, S. 2008. *Filthy as a loo seat: hazard of computer keyboards*. Guardian (UK). Available: <http://www.guardian.co.uk/technology/2008/may/01/computing.health>. [Accessed May 2 2008].
- MARSH, S. 2020. *NHS test-and-trace app 'not fully operational until September'*. Guardian (UK). Published June 4. Available: <https://www.theguardian.com/society/2020/jun/04/nhs-track-and-trace-system-not-expected-to-be-operating-fully-until-september-coronavirus>. [Accessed June 4 2020].
- MARTIN, H. 2020. *'Barnard Castle is the new Pizza Express, Woking': Twitter pokes fun at Dominic Cummings' explanation of his lockdown trip to Durham*. Daily Mail (London). Published May 25. Available: <https://www.dailymail.co.uk/news/article-8355181/Furious-Britons-pick-holes-Dominic-Cummings-story.html>. [Accessed May 25 2020].
- MAZELIS, F. 2020. *Classical musicians, orchestras and opera companies confront COVID-19 lockdown*. World Socialist Web Site. Published April 29. Available: <https://www.wsws.org/en/articles/2020/04/29/musi-a29.html>. [Accessed May 3 2020].
- MCFARLANE, C. & SÖDERSTRÖM, O. 2017. *On alternative smart cities: From a technology-intensive to a knowledge-intensive smart urbanism*. City, online first, 1-17. Available: <http://dx.doi.org/10.1080/13604813.2017.1327166>.
- MCGUINNESS, A. 2020. *Coronavirus: NHS prioritised over social care during early stages of outbreak, minister says*. Sky.com. Published May 20. Available: <https://news.sky.com/story/coronavirus-nhs-prioritised-over-social-care-during-early-stages-of-outbreak-minister-says-11991378>. [Accessed May 20 2020].
- MINIHANE, J. 2020. *Has the UK just canceled summer by imposing a 14-day quarantine?* CNN. Published June 4. Available: <https://edition.cnn.com/travel/article/uk-quarantine-summer-vacations-coronavirus/index.html>. [Accessed June 4 2020].

- MORGAN, T. 2020. *Coronavirus: Tough school decisions for families on the border*. British Broadcasting Corporation (BBC). Published May 23. Available: <https://www.bbc.co.uk/news/uk-wales-52776581>. [Accessed May 25 2020].
- MUNSHI, N. 2020. *Africa's cloud computing boom creates data centre gold rush*. Financial Times (London). Published March 3. Available: <https://www.ft.com/content/402a18c8-5a32-11ea-abe5-8e03987b7b20>. [Accessed March 3 2020].
- NAO. 2020a. *The government's approach to test and trace in England – interim report*. National Audit Office (UK). Published December 11. Available: <https://www.nao.org.uk/report/the-governments-approach-to-test-and-trace-in-england-interim-report/>. [Accessed December 11 2020].
- NAO. 2020b. *Investigation into government procurement during the COVID-19 pandemic*. National Audit Office (UK). Published November 18. Available: <https://www.nao.org.uk/report/government-procurement-during-the-covid-19-pandemic/>. [Accessed November 18 2020].
- NORGROVE, D. 2020. *Sir David Norgrove response to Matt Hancock regarding the Government's COVID-19 testing data*. UK Statistics Authority. Published June 2. Available: <https://www.statisticsauthority.gov.uk/correspondence/sir-david-norgrove-response-to-matt-hancock-regarding-the-governments-covid-19-testing-data/>. [Accessed June 2 2020].
- O'CONNOR, M. 2020. *Coronavirus: When will public toilets be reopened?* British Broadcasting Corporation (BBC). Published May 29. Available: <https://www.bbc.co.uk/news/uk-52774794>. [Accessed May 29 2020].
- ODLING, G. 2020. *Now police warn you NOT to step in road to dodge fellow pedestrians... because there's more danger from getting run over than catching coronavirus from briefly crossing paths*. Daily Mail (London). Published May 14. Available: <https://www.dailymail.co.uk/news/article-8321511/Now-police-warn-NOT-step-road-dodge-fellow-pedestrians.html>. [Accessed May 15 2020].
- ONS. 2020. *Deaths involving COVID19 by local area and deprivation*. Office for National Statistics (UK). Published May 1. Available: <https://www.ons.gov.uk/releases/spatialanalysisondeathsregisteredinvolvingcovid19>. [Accessed May 1 2020].
- PA. 2020a. *Hancock: local lockdowns will be used to suppress infection*. Guardian (UK). Published May 27. Available: <https://www.theguardian.com/world/2020/may/27/hancock-local-lockdowns-will-be-used-to-suppress-infection>. [Accessed May 28 2020].
- PA. 2020b. *Let's stop clapping for the NHS, says woman who started the ritual*. Guardian (UK). Published May 22. Available: <https://www.theguardian.com/world/2020/may/22/lets-stop-clapping-for-the-nhs-says-woman-who-started-the-ritual>. [Accessed May 23 2020].
- PALLISTER, K. 2020. *Why The WHO Is Now Using The Phrase "Physical Distancing" Instead Of "Social Distancing"*. IFL Science. Published March 23. Available: <https://www.iflscience.com/health-and-medicine/why-the-who-is-now-using-the-phrase-physical-distancing-instead-of-social-distancing/>. [Accessed April 6 2020].
- PHE. 2020. *COVID-19: review of disparities in risks and outcomes*. Public Health England. Published June 2. Available: <https://www.gov.uk/government/publications/covid-19-review-of-disparities-in-risks-and-outcomes>. [Accessed June 2 2020].
- PHELAMEI, S. 2020. *COVID-19 vaccine could be ready by end of this year: Dr Anthony Fauci*. Timesnownews.com. Published May 28. Available:

- <https://www.timesnownews.com/health/article/covid19-vaccine-could-be-ready-by-end-of-this-year-dr-anthony-fauci/597961>. [Accessed May 29 2020].
- POWLEY, T., KEOHANE, D. & BUSHEY, C. 2020. *Aviation industry prepares for sweeping changes in post-pandemic travel*. Financial Times (London). Published May 25. Available: <https://www.ft.com/content/abc6355a-3801-4e32-a992-f55e475d4454>. [Accessed May 25 2020].
- POWLEY, T. & PICKARD, J. 2020. *London Gatwick under a cloud as carriers threaten to quit airport*. Financial Times (London). Published May 6. Available: <https://www.ft.com/content/9ed51afc-ebbd-41a7-8653-3e5aceda9d07>. [Accessed May 7 2020].
- PROPPER, C., STOYE, G. & ZARANKO, B. 2020. *The wider impacts of the coronavirus pandemic on the NHS*. Institute for Fiscal Studies. Published April 9. Available: <https://www.ifs.org.uk/publications/14798>. [Accessed April 9 2020].
- RACHMAN, G. 2020. *Nationalism is a side effect of coronavirus*. Financial Times (London). Published March 23. Available: <https://www.ft.com/content/644fd920-6cea-11ea-9bca-bf503995cd6f>. [Accessed March 24 2020].
- ROSS, C. 2020a. *Analysis: Chancellor of the Exchequer Rishi Sunak takes his first steps towards an uncertain destination*. Press and Journal (Scotland). Published May 30. Available: <https://www.pressandjournal.co.uk/fp/news/politics/uk-politics/2225948/analysis-rishi-sunak-takes-his-first-steps-towards-an-uncertain-destination/>. [Accessed May 29 2020].
- ROSS, C. 2020b. *Coronavirus: Nicola Sturgeon says Scotland will not follow England's easing of 'shielding' rules*. The Press and Journal (Scotland). Published May 31. Available: <https://www.pressandjournal.co.uk/fp/news/politics/scottish-politics/2227436/coronavirus-nicola-sturgeon-says-scotland-will-not-follow-englands-easing-of-shielding-rules/>. [Accessed June 1 2020].
- RUIZ, K. 2020. *Coronavirus pandemic could be over in the US by November 11: Scientific model predicts virus will continue its steady decline with NO second wave*. Daily Mail (London). Published May 23. Available: <https://www.dailymail.co.uk/news/article-8350935/US-coronavirus-pandemic-early-November-predictive-model-shows.html>. [Accessed May 24 2020].
- SAVAGE, M. 2020. *Lockdown, what lockdown? Sweden's unusual response to coronavirus*. British Broadcasting Corporation (BBC). Published March 29. Available: <https://www.bbc.co.uk/news/world-europe-52076293>. [Accessed March 29 2020].
- SKAPINKER, M. 2020. *Will ageism get worse in the post-pandemic workplace?* Financial Times (London). Published May 28. Available: <https://www.ft.com/content/9eb440b6-4519-43a3-aba9-99b87926dd74>. [Accessed June 1 2020].
- SKY. 2020a. *Coronavirus: Confidence in government drops as under 30s admit defying lockdown rules, study finds*. Sky.com. Published May 21. Available: <https://news.sky.com/story/coronavirus-confidence-in-government-drops-as-under-30s-admit-defying-lockdown-rules-study-finds-11992057>. [Accessed May 21 2020].
- SKY. 2020b. *Coronavirus: Cummings row 'undermines trust in government and more people will die' - scientist*. Sky.com. Published May 25. Available: <https://news.sky.com/story/scientific-experts-advising-government-criticise-boris-johnson-after-he-backed-dominic-cummings-11994132>. [Accessed May 25 2020].
- SLOBODIAN, Q. 2020. *How the libertarian right plans to profit from the pandemic*. Guardian (UK). Published June 1. Available:

- <https://www.theguardian.com/commentisfree/2020/jun/01/coronavirus-libertarian-right-profit-coronavirus-pandemic>. [Accessed June 1 2020].
- SMITH, H.-A. & AGUILAR GARCIA, C. 2020. *Coronavirus: The towns most economically at risk from coronavirus pandemic*. Sky.com. Published April 23. Available: <https://news.sky.com/story/coronavirus-coastal-and-ex-industrial-towns-most-economically-at-risk-11977233>. [Accessed May 3 2020].
- SMITH, H. 2020. *Greece to resume flights from UK on 15 June with strict rules*. Guardian (UK). Published May 31. Available: <https://www.theguardian.com/world/2020/may/31/greece-to-resume-flights-from-uk-on-15-june-with-strict-rules>. [Accessed June 1 2020].
- STANDAGE, T. 1998. *The Victorian Internet*. London: Weidenfeld and Nicolson.
- STATON, B., BOUNDS, A. & TIGHE, C. 2020. *Public transport struggles to cater for the few*. Financial Times (London). Published May 21. Available: <https://www.ft.com/content/a25d7eb2-3ca8-40e1-95e5-cb885210f818>. [Accessed May 21 2020].
- SUNG, W.-T. 2020. *Taiwan's COVID-19 Diplomacy and WHO Participation: Losing the Battle But Winning the War?* The Diplomat. Published June 2. Available: <https://thediplomat.com/2020/06/taiwans-covid-19-diplomacy-and-who-participation-losing-the-battle-but-winning-the-war/>. [Accessed June 4 2020].
- SYAL, R. 2020. *UK parliament union threatens to strike after MPs' queueing chaos*. Guardian (UK). Published June 4. Available: <https://www.theguardian.com/politics/2020/jun/04/uk-parliament-union-threatens-action-after-mps-queueing-chaos>. [Accessed June 5 2020].
- TETT, G. 2020. *Is it safe to go to the shops, see a friend or get on a plane?* Financial Times (London). Published May 8. Available: <https://www.ft.com/content/a69afc14-904a-11ea-9b25-c36e3584cda8>. [Accessed May 10 2020].
- THORNHILL, J. 2020. *Three game-changing ideas for our post-pandemic world*. Financial Times (London). Published May 29. Available: <https://www.ft.com/content/f35db8c6-a02f-11ea-b65d-489c67b0d85d>. [Accessed May 30 2020].
- TOLHURST, A. 2020. *Boris Johnson orders review of two-metre social distancing rule to help pubs re-open*. PoliticsHome. Published May 27. Available: <https://www.politicshome.com/news/article/boris-johnson-hopes-twometre-social-distancing-rule-can-be-halved-to-help-pubs-and-public-transport-to-reopen>. [Accessed May 28 2020].
- TOPHAM, G. 2020. *EasyJet to resume flights across most European routes by August*. Guardian (UK). Published June 2. Available: <https://www.theguardian.com/business/2020/jun/02/easyjet-resume-flights-european-routes-august-covid-19-restrictions-lift>. [Accessed June 2 2020].
- TRIGGLE, N. 2020. *Coronavirus: What is the hidden health cost?* British Broadcasting Corporation (BBC). Published April 28. Available: <https://www.bbc.co.uk/news/health-52461034>. [Accessed April 29 2020].
- TUCKER, M. & GOLDBERG, A. 2020. *Coronavirus: Sports events in March 'caused increased suffering and death'*. British Broadcasting Corporation (BBC). Published May 26. Available: <https://www.bbc.co.uk/news/uk-52797002>. [Accessed June 2 2020].
- VAN HEERDEN, S., PERTOLDI, M., BUSTI, M., et al. 2020. *Handbook of sustainable urban development strategies*. Joint Research Centre (European Commission). Published February 6. Available: <https://op.europa.eu/en/publication-detail/-/publication/43b8d548-49bb-11ea-8aa5-01aa75ed71a1/language-en>. [Accessed February 10 2020].

- VENKATARAMAKRISHNAN, S. 2020. *Start-ups race to develop Covid-19 immunity passports*. Financial Times (London). Published May 24. Available: <https://www.ft.com/content/a5721020-5180-4cb4-ac7e-a464c65f3028>. [Accessed May 24 2020].
- WAKEFIELD, J. 2020. *Coronavirus: Google ends plans for smart city in Toronto*. British Broadcasting Corporation (BBC). Published May 7. Available: <https://www.bbc.co.uk/news/technology-52572362>. [Accessed May 8 2020].
- WAKEFORD, T. 2020. *Mutual aid, global solidarity and techno-fixes*. The Ecologist. Published May 19. Available: <https://theecologist.org/2020/may/19/mutual-aid-global-solidarity-and-techno-fixes>. [Accessed June 4 2020].
- WALKER, P. 2020. *Local lockdowns could be used if coronavirus cases rise, says Raab*. Guardian (UK). Published May 31. Available: <https://www.theguardian.com/world/2020/may/31/local-lockdowns-could-be-used-coronavirus-cases-rise-says-raab>. [Accessed May 31 2020].
- WHO. 2019. *The "World malaria report 2019" at a glance*. World Health Organization. Published December 4. Available: <https://www.who.int/news-room/feature-stories/detail/world-malaria-report-2019>. [Accessed May 3 2020].
- WHO. 2020. *Population-based age-stratified seroepidemiological investigation protocol for COVID-19 virus infection*. World Health Organization. Published May 26. Available: <https://apps.who.int/iris/handle/10665/332188>. [Accessed May 28 2020].
- WOOD, V. 2020a. *Coronavirus: Reducing social distancing to one metre would double risk of infection, study suggests*. Independent (London). Published June 2. Available: <https://www.independent.co.uk/news/uk/home-news/coronavirus-latest-social-distancing-metre-how-far-apart-guidance-who-study-a9543566.html>. [Accessed June 3 2020].
- WOOD, Z. 2020b. *More than 30,000 pubs and restaurants 'may not reopen after lockdown'*. Guardian (UK). Published May 22. Available: <https://www.theguardian.com/business/2020/may/22/more-than-30000-pubs-and-restaurants-could-stay-shut-after-lockdown-coronavirus>. [Accessed May 22 2020].
- WOODYATT, A. 2020. *Beach chaos threatens Europe as temperatures rise*. CNN. Published May 23. Available: <https://edition.cnn.com/travel/article/beach-crowding-intl-scli/index.html>. [Accessed May 23 2020].
- YEUNG, J. & YEE, I. 2020. *Tens of thousands of Singapore's migrant workers are infected. The rest are stuck in their dorms as the country opens up*. CNN. Published May 15. Available: <https://edition.cnn.com/2020/05/14/asia/singapore-migrant-worker-coronavirus-intl-hnk/index.html>. [Accessed May 15 2020].
- ZIADY, H. 2020. *2020 is a catastrophe for tourism businesses. Here's what the industry needs to get back on its feet*. CNN. Published May 13. Available: <https://edition.cnn.com/2020/05/13/business/travel-and-tourism-recovery-coronavirus/index.html>. [Accessed May 13 2020].
- ZUBOFF, S. 2019. *The Age of Surveillance Capitalism*. London: Profile Books.

5.0 Post Virus Works and Skills Needs

This paper was released on 7 July 2020.

The Pandemic Summary Timeline 6 June to 7 July 2020

June 6 – Dental practices can reopen under strict hygiene conditions.

9 June – The Government abandons plans to reopen schools in England before the summer holidays.

June 10 – From June 13 people who are living alone can form a support bubble with another household. Plans for a summer school catch-up programme are announced.

June 11 – The collateral impact of the lockdown becomes evident – in April there was a 60% reduction in referrals to cancer specialists compared to April 2019. Conservative party back-bench MPs pressure the government to relax the two-metre social distancing requirement.

June 14 – The Prime Minister encourages people to "shop, and shop with confidence".

June 15 – The wearing of face coverings is compulsory on public transport in England.

June 16 – The Government U-turns over the provision of school meal vouchers for 1.3 disadvantaged children and will provide them during the forthcoming school holidays.

June 19 – Children will return to school at the start of the 2020-2021 school year in September.

June 25 – Pubs, restaurants and cafes can make increasing use of outside spaces to deliver their services. A 5-stage programme is announced for theatres to reopen, but is criticised as lacking an investment component.

June 29 – Selective geographical local lockdowns are introduced, the first being in Leicester.

July 2 – Plans are announced to try and ensure that the reopening of schools in September will minimise contagion risk.

July 4 – Lockdown restrictions in England are reduced, for example allowing hairdressers to reopen.

Source: Derived from Wikipedia⁵⁸

5.1 Looking back at Paper 5

By the time July arrived, it was the state of the economy that was giving the greatest concern. There had been some recovery from the disastrous fall in output in April, but it was still not enough to diminish concern about redundancies to come, particularly because the Chancellor's furlough scheme was time limited. In

⁵⁸ https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

mid-summer, the virus situation looked even more promising. The slogan of the time was “build back better”. The government, in its usual populist messaging mode, was exhorting us to “build, build, build”. Unemployment was acknowledged to be a major future issue, and a significant element in this was going to be the position of young people. Something new and dramatic was going to be needed to cope with what was to come. What the government offered was Kickstart - an expanded apprenticeship scheme.

We, like others, took the opportunity in Paper 5, once again, to park the discussion of the pandemic itself, and look at the wider issues surrounding the event - raising further questions about how far the shock of the pandemic would result in fundamental shifts for the future. Popular debate at this point was still around the term the “new normal”. It had already become clear that we would be facing a recession of unprecedented scale and range with a government in power that believed that its role was to facilitate the forces of the market and intervene in the economy as little as possible and “get Brexit done”.

Paper 5 began with the task of documenting those high-profile events of closure and redundancy hitting the headlines as business failures began to mount. The list for the retail, travel, tourism and hospitality sectors was already confirming the prospect of serious loss both of businesses and of jobs. Looking back, with lockdown after lockdown - and the latest, less bullish, government view that it will be months into 2021 before severe restrictions end - the overall scale is potentially catastrophic. How many more job losses there might have been without the benefit of the Chancellor’s employment support scheme is impossible to estimate, but this “finger in the dyke” (extended yet again, this time until April 2021) was going to have to be removed at some point. The prospect of a “cliff edge” over which many companies would fall when the original August closing date for furlough arrived was beginning to feature prominently in the newspapers.

- By July, many of the nation’s most **high-profile businesses** figured in the list of those having to make serious reductions in their operations. British Airways, Rolls-Royce and Airbus were prominent in news reports but below them were the less newsworthy losses of very large numbers of small and medium enterprises.
- Covid-19 was seen to be **accelerating the digital transformation**, bringing about an additional wave of more generalised restructuring and job losses. Many of the companies placed on “life support” by the Chancellor’s furlough scheme were going to have to think about re-engineering their business to face the transformation if they were to survive beyond it. Somewhere in the surviving set, there were likely to be large numbers of “zombie” businesses on life support – marking out a serious problem for the future.
- Brexit seemed a long way off in mid-summer. While there was no sign of a post-Brexit recovery strategy - beyond simply being responsive to the demands of the marketplace - neither was there any word of a government strategy for dealing with perhaps more than **3 million unemployed people – half of them young** (*with the Brexit deal agreed, the mood is still of great uncertainty about what it will entail. Current unemployment stands at 4.9% with 1.6 million out of work with furlough still firmly in place*).
- While the government was in “holding on” mode, the opportunity to address the big questions about **inequality, fairness, and the role of public versus private investment** in the recovery was lost and was never recovered once the second wave arrived (*the Chancellor’s Economic Review in November still offered no hint of policy in this respect*).
- **Online shopping** and with it the **decline of place-based and town centre shopping** was already part of the “new normal”. Shop-based retail in the town and city centres of the country was never going to look the same again (*further major liquidations of major town centre retail groups and further lockdowns were just over the horizon at this point*).

- Work contracts in the newly opened “fulfilment centres” still favoured the **part time and zero hours contracts** that had been present in the old model - but now they were offered by large companies with highly organised human resources policies based on the principle of maximum flexibility.
- Chapter 5 set out the view that there would be even greater **polarisation in labour market opportunity**, both by occupation and place in the post-virus world. Jobs would be lost and those remaining transformed toward more flexible formats. New jobs will be in different places from those lost.
- The first few months of the pandemic had seen congested city cores become **reduced to quiet zones with echoing footsteps** (*tiered lockdowns that are projected to last until March 2021, will see this continue*). Even those businesses still operating in the city are likely to run in “blended” mode with workers taking only part of their time at home and part in the office (*later data shows that around 50% of office workers will remain in some form of blended working*).
- Meetings that demanded international movement are now in large part being conducted through **digital communications media platforms** with a significant effect on airline futures. Webinars have opened up the world. International performances can be presented live to a global audience (*the continuation of the crisis into 2021 is locking this in still further*).
- Business had become wary of the vulnerabilities that just-in-time manufacturing faced through increasingly **complex and distended supply chains** and the shock of the pandemic had made this threat an existential one. (*Supply chain blockages are very much a live story at the end of 2020 on the imminent arrival of the Brexit end-date and queues of vessels and lorries from the sudden shutdown of routes to France*).
- All these changes acting in combination have the potential to worsen the conditions of life for **one segment of the population** (*while having a far less damaging effect on another (we discuss this in detail in a later paper)*).
- In July, mayhem surrounded the government **response for the education sector**. Learning time has been lost. Examinations have been disrupted. School closures had untold effects not just on learning but on the conditions of life and security for many children in the most marginal conditions (*at the end of 2020, we find ourselves going back to the unresolved issues of the first lockdown as school closures return to the agenda*).
- As early as July, we were calling for there to be a clear and consistent strategy to cope with the negative impact of the virus on jobs and to take the opportunity to reconstruct **a skills programme** fit for the future - we deal with this in Paper 6.
- Perhaps above all, **attitudes to welfare policy** based on the idea of near full employment still provide the foundation for the UK welfare system. It was clear as early as July that this was an untenable assumption. There was, again, an opportunity at a quiet time for the pandemic for government to address this. It was foregone. (*By November, the case for a strategic re-think was overwhelming but the Chancellor’s Autumn Review was silent on the subject of welfare reform*).
- We knew in July that having the one of the highest death rates in the world from Covid-19, came not just from a failure adequately to deal with the transmission of the virus but from being willing to tolerate a level of **health and general inequality** that predisposed so many people to the worst outcomes (*in December 2020 voices are being raised even more stridently about this – again with no response from the government*).

Looking back to what we wrote in July, it is shocking to see how much we knew then about where we might find ourselves now. While we were less anxiously concerned about the progression of the virus at that time,

we could already see what was going to happen in the sphere of unemployment and in the demand for welfare support. We could see that a generation of young people were in serious danger of having their entire lives blighted by the loss of educational and learning opportunity. We could see that there was a geography to the worst outcomes of the virus and of economic retrenchment and that talking about “levelling up” after the pandemic on the same terms as before it was a nonsense.

The summer was a time when - with the virus in abatement (sadly not for long) - we could have turned our attention to the bigger issues. In the event, all we had was a Micawberish sense on behalf of government that all would be well come Christmas. (*In the end Christmas was all but cancelled*).

PAPER FIVE ‘POST VIRUS WORK AND SKILLS NEEDS’ FOLLOWS

5.2 Introduction: From Crisis to Opportunity

5.2.1 From looking back to looking forward

From every crisis comes opportunities. The Covid-19 pandemic has cost us dearly and continues to do so. But on the other side of it, whenever that is, there is an opportunity to re-think things going forward. A Guardian report noted (June 29th) that “*just 6% of UK public ‘want a return to pre-pandemic economy’*” (Proctor, 2020). It seems that a substantial proportion of the population has looked back during the last four months and declared themselves unhappy with the lives they were leading beforehand.

At the end of 2019, the wave of digital technologies was already having a significant effect both at work and at home, with a radical transformation of jobs and of employment. Social and spatial divisions were widening and people and places were getting further apart in terms of wealth and opportunity. More was to come even if a global pandemic had not descended on an unprepared world.

*“What lies in front of us, is a transformation potentially so fundamental that we have to start re-thinking the whole future of work, opportunity and well-being for a substantial segment of the population. It is not that this “shock of the new” – on the advent of AI and robotization – will be unequivocally bad. Indeed, the evidence of past technological revolutions indicates that more jobs are likely to be created overall than are lost (Servoz, 2019). The real concern is that, on the way to this better state of things, we will have to **pass through really significant short-term disruptions** where gains and losses play out in greater extremes from place to place.”* (Lloyd, 2020)

When this was written in February 2020, there was no indication that only weeks away there would come a transformation so drastic that people would be stopped going to work and be locked down in their homes for months and that the global economy would in effect be shut down. This particular “short term disruption” was entirely unthinkable and in July there is a real struggle to return back into anything resembling normal life. Many of the changes we were having to take on board as a society before the virus were probably going to take some time to come through. Now the impact of the shutdown may well see a sharp acceleration as new imperatives for economic survival drive the process forward and the old order is for the time being suspended.

So, people have clearly had time to reflect on how it used to be and wonder whether what came before is really worth going back to (Doward, 2020). In lockdown, the new technologies came to our aid in keeping us connected; communicating and supplied with basic goods. We have all had to engage with them. This is a transformation in itself. The population at large is better equipped to think creatively about what else we might choose to do with the digital transformation – for society as well as the economy. In the wider context of the pandemic experience, there has been a realisation of the essential value of the NHS and of

those we now recognise as “key workers” as being an essential component in our wellbeing. We also saw enough about the uneven impact of Covid-19 on certain groups to know that that inequality has to be taken more seriously. We know definitively that our neighbours’ health is not something we can afford to ignore.

This paper (the 5th in our Covid-19 series) looks at some of those trends that were already in evidence before the pandemic to see how – unaltered – they might have taken us forward; what the arrival of the pandemic might have done to change that pathway and what lessons can be drawn from the Covid-19 experience to move to a better future.

5.2.2 Lockdown and its transformative changes

Before the advent of Covid-19, in the “old” normal, most people had become used to a lifestyle that saw ‘work’ as a place they travelled to and home as where they were when not there. Work was about face-to-face activities and office meetings, or factory or warehouse jobs where you performed as part of a production or goods handling system. Commuting was just the price you had to pay for earning a living and travelling - most often in a press of people or cars - to other locations for work. It was a necessary evil (albeit one that carried a certain amount of kudos for business travellers going to more interesting and exotic places). For the most part, this was undertaken without too much thought or reflection.

For months that system was switched off, with no clear indication about when it will be (or even can be) fully switched on again (Davenport et al., 2020). For those able to work at home (around 50 percent), this became the site of employment. The binary work/home distinction ceased to apply. For those who had to go to a place of work anyway, the regular hassle of getting there was added to by the new hazards of contagion – especially if it was by public transport (BBC, 2020d). Where this work involved close contact with people, in nursing and in the care sector for example, the hazards were considerable and we are now able to see the sacrifices that people in this situation were called upon to make. All this provided a perfect context for reflection. Most people had the time to stop and think under conditions where the day was no longer fixed and patterned by the disciplines of office or factory practice or transport timetables. The cadence of life was profoundly altered with more available space for thought.

Engaging in its own reflection, the OECD looked back and came up with the observation that:

“the Covid-19 pandemic has also highlighted several key vulnerabilities of our societies and economic system. Global interconnectedness has helped to create huge economic and social benefits for decades, albeit unequally, but also facilitated the rapid spread of the pandemic. More broadly, the speed and depth of the economic crisis have shown that a core principle of the global economy – prioritising short-term economic growth and efficiency over long-term resilience – can have huge societal costs.” (OECD, 2020)

“Build back better” was the OECD prescription – a term that has taken on wide currency.

Much has been written in recent weeks about the short-term need for unlocking the economy. It has been focused on getting people back to work (where their jobs still exist, or boosting infrastructure investment (BBC, 2020b)), getting children back to school (coping with lost learning (Richardson, 2020) or repairing infrastructure (Coughlan, 2020)) and, most recently, going on holiday or to the pub and the hairdresser (Blackall and Campbell, 2020).

Meanwhile, as explore in the next section, the pace of business retrenchment and liquidation and loss of jobs is *accelerating fast by the day*. As far back as 12th June, data from the ONS had already made it clear that; “we are on course for the largest recession in three centuries” and that “that the number of people unemployed and claiming benefits is rising faster than at any point in our history” (Wilson, 2020). The

response to this so far has been in sound bite exhortations to; “*build, build, build*”, alongside general talk of a Roosevelt style New Deal. We have yet to hear about a coherent strategy for coping with the immediate outfall of soaring unemployment – especially among the young – let alone about the principles to be adopted for a sustainable and socially inclusive future recovery⁵⁹.

5.2.3 Closures and redundancies - the prelude to recession

Over the last three days of June and into early July the pace of business closures intensified sharply. There had been early warnings about the extent of this as companies – particularly in the airline (Meyer, 2020) and tourism⁶⁰ sectors – had signalled to government the scale of their potential difficulties. Most were looking for some form of public assistance. With the previously announced tapering of the furlough scheme and the need under legislation to give notice of redundancies, a worrying list of businesses had determined that they could not go on or needed seriously to trim their workforce.

The flood of announcements of closure is becoming redolent of the manufacturing losses of the early 1980s with weekly lists of business failures – then mostly in manufacturing. Unsurprisingly, this time it is the retail and hospitality sector leading the way with high street brands like Oasis, Warehouse, T.M. Lewin and Harvey’s Furniture, joining the shopping centre owner Intu as the latest additions to a list of closures that was already a long one in the sector before the advent of Covid-19⁶¹. This came on the same day that John Lewis announced forthcoming store closures, Harrods declared 700 job cuts, Bella Italia closed 91 outlets with the loss of 1,900 jobs.

Even before Covid-19, the anticipated hollowing out of shop-based retail was already well on its way⁶². The ‘sameness’ of the British retail offer in shopping malls meant that earlier chain store closures (such as British Home Stores, and more recently Debenhams) had left malls with empty spaces looking like a mouth with missing teeth. This was accompanied by the demise of small shops on the ‘high street’ (Moore, 2018). The recovery from lockdown is destined to make this visual manifestation much more widespread.

Some fast food suppliers in particular niches are finding conditions difficult and making redundancies. The virtual emptying of the air terminals and the rail platforms has seen SSP, the owner of Upper Crust and Ritazza, cut half of its 9,000-member workforce. Earlier redundancies included those of Travis Perkins and Frankie and Benny’s as out-of-town retail parks begin also to lose their retail players. The consultancy business added a name the list as Accenture closed out 900 jobs. On top of this was the list of operations-site closures associated with the cessation of air travel – Swissport, British Airways, EasyJet and so on, and it shows that local job losses in and around the nation’s airport hubs are going to lead on to permanent effects on what were previous growth hubs.

The same is the case with retrenchments at Rolls Royce and most recently at the Airbus site in North Wales. All of these events will have employment and income multiplier effects. The impact on local labour markets around the UK is going in some cases to be extreme and it is still far too early to say how much further this will go. This one paragraph, representing the last few weeks but - mostly one day - of closure and redundancy announcements, has to alert us to the seriousness of what lies ahead. If Phase One was

⁵⁹ In computing terms, the government cannot simply apply ‘control, alt, delete’ to restart the previous operating system. The previous system was horribly affected by the virus that no anti-virus programme was able to detect. Neither can the previous system be made resilient by a disconnected series of software patches (the sticking-plaster approach). More, a new operating system is needed where a systematic series of *program updates* need to be *activated*.

⁶⁰ <https://www.statista.com/statistics/1104835/coronavirus-travel-tourism-employment-loss/>

⁶¹ The news about retail closures is documented at <https://www.retailgazette.co.uk/blog/category/all/coronavirus/>

⁶² <https://www.retailresearch.org/retail-crisis.html>

the virus event itself (still ongoing) then Phase Two is rapidly unfolding. A concerted effort is going to be needed at all levels of government and society to imagine the challenges to come and move quickly to prepare for the worst of them.

A real existential fear is that many of the country's more vulnerable places will rank high on the list for the most seriously impacted - as unemployment is distributed unevenly across geographies. As Andrés Rodríguez-Pose warned us back in the "better days" of 2018, the patterns of deprivation and poor jobs was more than just an economic risk:

"The rapid rise of populism represents a serious and real challenge to the current economic and political systems. The stakes are exceptionally high and there is no time for business as usual. The array of solutions is, however, limited. Doing nothing is not an option, as the territorial inequalities at the root of the problem are likely to continue increasing, further stirring social, political and economic tensions." (Rodríguez-Pose, 2018)

Previous labour market policies for the most disadvantaged failed to offer the necessary social and economic resilience to cope with the existing situation, let alone a pandemic. The warning is stark – tackling inequality, social and geographical – is going to be one of the most critical challenges in the recovery. Soundbites like "levelling up" may have their place for aspiration - but will not substitute for some hard thinking about how to address what has become a defining feature of the advanced economies for past decades (Piketty, 2020). Returning to past labour market, fiscal and social welfare policies will not help to 'build back better'.

Despite all this, we are at a moment when all the users of the complex, hyper-connected system that is the contemporary economy and society can take time out and begin to reappraise what they might want from it in the future. A comprehensive *system re-design* presents itself as a real possibility – since we are faced with dramatic change in any case. While it is as yet hard to speculate on what that future might look like (and we aim to contribute here), we can at least see what might have been the likely pathway from what we know about some of the observable pre-pandemic trends that we would have faced anyway. This can offer a basis on which to begin re-thinking what else we might want to consider post-pandemic. We will use this as a narrative device for what follows. Our overall purpose is to take some thoughts about this into one particular question; *'facing the prospects of mass unemployment, and potentially dramatic shifts in demands for skills and competences, how will policy need to respond?'*

5.3 Covid-19: New Challenges for Work and Workplaces

5.3.1 An opening for the intensive application of new job replacing technologies

When the virus episode is over, the deep transformation of work (Graetz, 2020) and society (ECONOMIST, 2019c) going on under the influence of the digital technologies is likely to be exaggerated and move forward in disruptive ways (Harford, 2020b). The development of Artificial Intelligence (AI), Robotics, video and networking technologies and 3-D printing was already transforming workplaces, transport networks, and platforms for production before the pandemic. Now, as balance sheets come under severe pressure from lockdown, moves to replace expensive humans (with all their idiosyncrasies of needing holidays, being off ill, and wanting salary increases) with technologies that can replace them (robots working 24 hours a day etc. and not complaining when they are replaced) are likely expected to increase sharply.

This is not, of course, a one-way street. The evidence of past technological revolutions indicates that more jobs are – in the long run - likely to be created overall than are lost. However, the real concern for us now is that on the way to this better state of things, we will have to pass through a challenging period where the

gains and losses play out in even greater extremes from place to place. This was going to be the case before Covid-19. To get some sense of the scale of the shutdown that unfolded, the ILO has been monitoring the global labour market impact of Covid-19, noting (June 29) that “*there was a 14 per cent drop in global working hours during the second quarter of 2020, equivalent to the loss of 400 million full-time jobs (based on a 48-hour working week)*” (ILO, 2020).

The need for restored and new jobs to cope with this order of potential loss is so great that no simple going back to where we were is likely to fit the bill. New jobs from the ongoing ‘Fourth Industrial Revolution’ will arise but the numbers needed over the required timescale are unlikely to be forthcoming. On top of this, past experience shows that this is generally *not for the same people and in the same places* where jobs are lost and new ones arise (Rodríguez-Pose, 2018). What seems highly likely is that there will be even greater *polarisation* in labour market opportunity, both by occupation and place in the post-virus world. High-end, well-paid jobs will continue to be created more easily for those with the requisite and flexible skill sets.

At the same time, large numbers of the formerly more secure jobs will disappear, as we are already seeing, while many low-wage, low-skill, low-attachment jobs will emerge. A graphic example of this can be seen in the move of ‘customer-facing’ jobs in high streets to AI controlled warehouses, where ‘picking and placing’ (increasingly by robots) displaces workers and to ‘algorithmically managed’ home delivery services (Inagaki, 2019, Thomas, 2020). This is a process capable of raising serious instability in the context of the pandemic recovery. Going forward, waiting for market forces alone to deliver what is needed will not fill the bill. As in the depression of the 1930s and the Post-War period after 1945, the state will be needed to step in.

5.3.2 Deeper penetration of online shopping

A widely experienced shift in consumer behaviours before the pandemic - and now one almost universally adopted under lockdown – was where the regular shopping basket was sourced over the internet and where delivery was organised by advanced logistics technologies to produce goods and services at the front door (ECONOMIST, 2019a). Online delivery of everything from groceries, through clothing and general shop goods to pizzas, and ‘high end’ meals (for example Michelin starred restaurants starting delivery of meals (Hancock and Cundy, 2020)) or packaged meal ingredients was already making inroads appearance before the end of 2019; especially for busy, two-worker households where commuting took substantial time out of the diurnal schedule: “*The recipe box sector has been one of the few winners in the crisis. Mindful Chef has reported a 452 per cent rise in customer numbers since the end of March, as well as a 387 per cent increase in its recently launched sideline in frozen meals*” (Hancock and Hodgson, 2020). Delivery drivers were a fast expanding segment of the labour market even in lockdown.

Beyond the pandemic, this is set to move to a new, higher, level with an expansion in range and intensity. No major retailer is going to survive without travelling along this pathway to some degree. Some features will make this even more imperative. For example, how will we ‘try on’ clothes in a future where contagion is possible - when they may be ‘infected’ by another person doing the same? This is a problem also for the luxury clothes sector where much purchasing has been in person with personalised shopping (Indvik and Abboud, 2020). The super-dominance of internet providers like Amazon has been massively enhanced by the imposed need to shop online for almost everything.

As a result of this, and as physical retail outlets reduce in importance, the warehouse logistics, and goods delivery sector has expanded considerably. By contrast, liquidations and job losses in high streets, supermarkets and most recently shopping malls (see the story of the failure of Intu (BBC, 2020j)) are being announced with sad regularity (BBC, 2020f). These bi-polar job shifts are seeing, on the one hand, growth

in the technology infused logistics industry and on the other, considerable job losses for retail workers in place-based outlets (though not all, as Primark announced new openings on July 2 (BBC, 2020i)).

Earlier suggestions that worker-replacing technologies in the warehousing and logistics sector would appear, have been (for the present perhaps) overturned – with growing recruitment. However, the explanation may have more to do with the lead times needed to install new automated infrastructure in the distribution centres than a long-term demand for labour. So, there has indeed been a sudden expansion in jobs for warehouse (or what Amazon called ‘fulfilment’ centres) staff and delivery drivers (Koetsier, 2020). But it is too early to tell how far this trend in recruitment will be maintained.

In all the sectors affected by the turn to online, it is still likely that in the longer run, the overall balance of jobs will be a negative one – not least because the climb out of recession will see consumer disposable demand under pressure as unemployment takes its toll, and as the economy struggles to recover. The concern is that at both ends – shop retail and warehousing and distribution work – where activity in the past was labour intensive, it will no longer be so. Furthermore, wide geographical dispersal was a feature of the retail sector but with the demise of high street retail and the growth of large scale and highly automated distribution centres this distributed pattern will be profoundly altered.

5.3.3 Workplaces having to respond to the possibilities for contagion

Confronted with the impact of Covid-19, employers now have to take on board that humans are potentially contagious to each other in many workplace contexts. A single person can infect many others. A good recent example is the incident at a German meat packing factory where the conditions were ideal for Covid-19 (Solomon and Cookson, 2020) – the virus survives well on indoor cool places and maybe transmitted through air conditioning. In a production setting *“add the challenges of social distancing on a busy production line, together with loud machinery forcing staff to raise their voices. Researchers know that situations where people sing - or have to shout - increases the chances of them projecting the virus to others nearby”* (BBC, 2020h). Whether one metre, 1.5 or two, whether wearing a mask or full PPE (Personal Protective Equipment), workplace layouts must respond, with spacing, hygiene facilities and adjusted circulation routeways. These can present huge potential costs to absorb while restricting plant or office capacity well below the previous levels.

With such restrictions, having people together on site quickly becomes much more expensive (enhancing the pressure to look for the technological solutions we have outlined). Furthermore, the new hygiene and related requirements are cost impacts coming in just as businesses are facing significant reductions in income: the British Chamber of Commerce reports on June 30 that:

“63% of businesses reported a fall in export sales (8% reported an increase, 29% said they remained constant); 73% saw a fall in domestic sales (10% increase, 17% remained constant); 64% reported a worsening of cashflow (11% saw an improvement, 25% reported no change); Investment intentions for services and manufacturing fell to the lowest since BCC records began; 58% expect their turnover to fall over the next 12 months (25% expect a rise, 17% think it will stay the same); In the previous quarter - January to March - 56% of firms were expecting an increase in turnover.” (Hotten, 2020)

From the worker perspective, employees may be less willing to travel, even if the rules allow them actually to get to work, and their mode of travel did not put them so much at risk. In general, where it is feasible, automation is going to seem a lot more attractive across the board than it did four months ago. What was perhaps a gradual five-year programme of investment in worker replacement technologies, has probably suddenly become a more immediate priority. Robots can also get software bugs and viruses, and they may even become unavailable through hacking and cyber-attacks. They can infect each other through software

viral transmission. Security in the one domain may open the door to vulnerability in another. There is even the potential for digital transformation pandemic. On 19 June 2020 Australia reported a systematic cyber-attack that were “*were widespread, covering "all levels of government" as well as essential services and businesses*” and were almost certainly originated by a “state-based actor”. The digital solution may also have its limits (BBC, 2020a).

5.3.4 The transformation of the office: Working from home

While shopping for basic goods has been transformed into an increasingly online activity, a much more systemic transformation has been taking place with respect to the role of the office as a workplace (Gibbens, 2020). Before the virus arrived, offices were already well down the track of being organised around online networks, sophisticated workstations, and nationally and internationally distributed working, but the office was still very much at the core of most businesses: see, for example, a ‘vision for the future’ back in September 2019 (ECONOMIST, 2019b). Although people increasingly had found that working at home was a possibility using digital communications technologies, it was not at that stage a requirement. Presenteeism in offices was still the ‘norm’, and with it came the crowded commuter trains and buses, and the congested business districts of the major cities.

The shape of the office in its open plan form, with its hot-desking possibilities and with its on-site video conferencing facilities was in most cases still at an early stage of encompassing the possibilities offered by technology. The standard driver for open plan office working made financial sense – more people in less space and (hopefully) more profit and productivity and easier supervision. As our previous chapters argued, the compression and congestion of spaces in cities and offices had unconsciously offered the Covid-19 virus a perfect transmission environment and this has impacted mindsets.

While people were unable physically to go to work, the disciplines, and skills of remote working (both technological with Zoom, Teams, remote data access, and social/psychological skills for using the home base) emerged, and a massive transformation opportunity opened up. This might have affected as much as 40-70 percent of the pre-virus workforce, although it varies across sectors. Managers have had to learn new methods for managing their virtual teams but, where these have been seen to be successful, whole sectors have had the chance to discover the productivity gains to come from this way of working. Many businesses, with parts of their pre-virus activity assigned to international working through internet platforms, discovered that they have a new option – *to use people at home* (in both senses).

In the face of the pandemic, many office-focused businesses have already reviewed their staffing location, and their travel and mobility arrangements (Gillett, 2020). With the huge lockdown pressures that have appeared on their balance sheets, companies have explored ways to use fewer workers with greater efficiency. The Covid-19 event will have given the process of change a sharp impetus – in many cases against the dire scenario of ‘change or die’ for the firms involved. Emphasising this further, around half of the UK workforce discovered that working from home is a feasible option under virus conditions. For management, the supervision aspect of the spatially fixed office with its open plan format could be quickly taken up by digital forms of surveillance (Murphy, 2020). In some cases, it was, however, still a regulatory requirement to have an authorised office location. There were some issues as we noted previously, such as the challenge in maintaining security of business IPR, and privacy regarding sensitive data. In some cases, regulations required that certain business activities could only take place in secure office locations (Masters, 2020).

Over time, many of the less obviously convertible office roles such as basic research (ECONOMIST, 2018b), marketing and promotion and even HR have begun to respond to the fast-emerging possibilities of

Artificial Intelligence (AI) and Virtual Reality (VR) where the pandemic has seen an acceleration in exploring more sophisticated collaboration platforms and devices, using virtual and augmented realities:

“despite advances in video conferencing, ad hoc and informal “water cooler moments” where colleagues interact in person are much harder to recreate digitally, making it hard for employees to maintain their sense of cohesion with peers and the wider organisation. Tech companies are now looking to close that gap.” (Hodge, 2020)

Nevertheless, as the pandemic has progressed, it is clear that while the ‘office’ is not necessarily consigned to history (for example *“homeworking can also cause mental stress, with many employees noting “video call fatigue” and craving real human interaction. A survey by Monster, the jobs website, found that more than 50 per cent of respondents who are teleworking due to the pandemic are experiencing burnout”* (Espinoza, 2020)), in many cases it will still substantially see a move away from a dominantly place-based activity:

“Last month, Facebook said as many as half its 48,000 employees could be working from home within a decade, while Canadian e-commerce firm Shopify followed Twitter in saying its 5,000 employees could work from home permanently. In the UK, the chief executive of Barclays bank, which operates from a tower block in Canary Wharf, has said that “the notion of putting 7,000 people in the building may be a thing of the past.” (Kollewe, 2020)

The lockdown experience has provided an unlooked-for opportunity to stress-test organisational viability, work continuity, and the experiences of staff working at home as a business process re-engineering option. Sharply falling city centre rents also tell us that, going forward, a significant shrinkage in the scale of the office sector is likely – at least in the short term and even perhaps the long. The successful pressure from business on the Government (in England only initially!) to have social distancing reduced to 1+ metres has seen space-capacity concerns ease this to some degree, but in many cases this has post-dated the thinking about the need to change anyway. The office as we knew it in February 2020 will have gone through a process likely to change its function, form, purpose and even location.

From the employment perspective overall, an automation trend fuelled by advances in AI and robotics, that was slowly working its way through the labour market pre-virus has been given a considerable boost. What could not be prefigured at the right scale, however, was what would specifically happen to the office as a place of work. Two forces can be seen as underpinning this: those changes we have just outlined, but on top of them a potentially far-reaching shift in the *preferences of the office workers themselves*. Many will have discovered that there is a way of life beyond the congested daily commute to the centre and will look more closely at working from home in more attractive and liveable surroundings beyond the urban core. Evidence of this already coming though in real estate home search data (the market for country houses in Dorset and Wiltshire had been reported as being very buoyant).

Combining all these forces together, the geography of the city is undergoing a transformation - though we are, as yet, far from clear about an emerging shape. This decentralisation trend will bring with it another wave of change as those local activities that service the office clientele – city centre restaurants, bars, take-aways and so on - lose a good deal of their market. Theatre and entertainment venues are among the worst hit by lockdown (Brigham, 2020). How cities will respond to such challenges may require more sensitive governance and greater autonomy than before:

“... cities need to run themselves for the post-covid era. They are already grappling with how to move millions of people when nobody wants to squeeze onto crowded buses and trains. Some have bold plans for expanded networks of bike paths, and have erected plastic barriers to encourage walkers to occupy the roads. This is encouraging. But cities that fear commuters will drop trains and buses for private cars, clogging the roads, would do even better to manage demand

by pricing driving and parking more highly. Cities also need more autonomy .. National governments and states will need persuading that cities should have more power, especially as many will also be begging for money.” (ECONOMIST, 2020a)

5.3.5 Manufacturing and production: The impact of the pandemic on global solutions and emerging national rivalries

Another area where change was rapidly underway before 2020, and will be likely now to intensify, was in how production was geographically distributed and connected up through ‘just in time’ supply chains. ‘Just in time’ manufacturing, facilitated by supply chains that delivered components to a factory only hours before they were used, originated in Japan in the 1960s⁶³. Driven partly by the lack of available land for development and avoiding locking capital up in warehouses of components; just-in-time was accelerated by the digital transformation - enabling the ‘joining up’ and integration of information without the friction of space – one of original enablers of globalisation. Alongside changing transportation possibilities, in particular massive ships and containerisation⁶⁴, global electronic digital networking had brought us the complexly integrated world of ‘just in time’ just before the pandemic arrived. This same dynamic, fully integrated, hypermobile global system also brought us Covid-19, as we explored in earlier chapters.

Before the system was forced to come to a partial halt⁶⁵ to cope with the emergency, things were *already beginning to change*. The economic power of China in the global economy was becoming an issue – both strategically and for home country workers in certain sectors. This was giving rise to more nationalistic responses around the world but particularly in the USA (for example (ECONOMIST, 2018a)). For decades, China, perceived as a source of cheap, compliant, and flexible labour, had attracted a significant share of the global manufacturing base. Even before the pandemic seriously disrupted extended supply chains, potential trade and IPR wars were making an appearance (Rosenbaum, 2019). The open trading environment without close regulation that had emerged in world trade also attracted the attention of those with concerns about global warming (Vandette, 2020), forcing the logistics industry to start taking action⁶⁶.

When Covid-19 hit, the system where many of the wealthier countries had allowed the globalised division of labour to lead to home deindustrialisation in favour of a shift to a services-based economy found themselves desperately exposed (again something that had been in play beforehand but whose impact was played down). Many countries discovered that they had left themselves with inadequate capability to build adequate stocks of PPE (Singh, 2020). They also had no domestic capability to manufacture a range of the products that were suddenly needed – from the most basic (face masks and scrubs) to the most sophisticated (ventilators and pressurised oxygen delivery systems).

Looking desperately to source products internationally, businesses and governments found themselves in intense competition with each other. There had already been some concern about the way the dominant global producers had configured their production facilities. We see this now, where a single country (the USA) dominant in the critical medicines sector; *“bought up almost the entire global supply of one of two drugs used to treat coronavirus”* (SKY, 2020). The story of the scramble to produce a vaccine – with 19 different variants currently under scrutiny in the race to be first – is yet to play out in this environment as the successful ones move to production and delivery⁶⁷. Supply chain risk has therefore become a hot topic.

⁶³ https://en.wikipedia.org/wiki/Just-in-time_manufacturing

⁶⁴ <https://en.wikipedia.org/wiki/Containerization>

⁶⁵ While us ‘humans’ had to remain in our accommodation, governments did allow some continuation of movement and supply chains, particularly food and medicines, or the economy would have broken down.

⁶⁶ <https://www.allynintl.com/en/news-publications/entry/supply-chain-its-environmental-impact>

⁶⁷ As of July 3rd, 140 potential vaccines were being researched, delivery estimates ranged from 12-18 months.

On June 17th, the French government indicated that it was going to look closely at its dependence on outside global sourcing for key pharmaceuticals (Laidi, 2020) and for some components of health equipment.

The key question for the longer run future of work is just how far is it likely that the jobs lost overseas will be coming back as a means of developing supply chain resilience (where countries look inwards to production). In some sectors this seems clearly to be the case. Overall, it is still very hard to see how these new ‘trade wars’ will develop. Given the fact that Covid-19 is a quintessential ‘global’ problem, retreating into national silos may not be the best way of building resilience against future pandemics. Indeed, those countries that have responded best to the pandemic are those that have built strong policies (often based on experience with SARS, MERS, or EBOLA) and who share and coordinate at the international level (ECONOMIST, 2020c). It is simply too early to call how the impact of the virus on globalisation will play out.

5.3.6 Prospects for nearshoring through technology innovations

For some time, we have been hearing about “nearshoring” – production retreating from being globally configured to being brought back home and closer to the end-consumer. Once again, new technology comes into the equation. For businesses taking reasoned decisions about future supply chains, the potential of some digital technologies can be highly attractive. For example, developments in 3-D printing (3dp) may well chime in with other aspects of the post virus world. As with all technologies, however, there is a need to avoid hype and consider realities. Back in 2011, the Economist advised about 3dp that it was:

“a technological change so profound will reset the economics of manufacturing. Some believe it will decentralise the business completely, reversing the urbanisation that accompanies industrialisation. There will be no need for factories, goes the logic, when every village has a fabricator that can produce items when needed.” (ECONOMIST, 2011)

Such developments have not yet transpired, but it is clear that the technology offers ground-breaking possibilities. There is even the potential for human organs to be produced using it (Pooler, 2019). Its costs make it highly affordable. It is not only big business that can make use of 3-D printing (3dp); schools and universities were using it to print personal protective equipment (PPE) during the pandemic (BBC, 2020e, Edinburgh, 2020). This single example illustrates the potential innovative and production capacity that could potentially exist at local levels, that is if it could be harnessed effectively. The future is still opening up and the possibilities are enormous.

As an example, this capability to reassign some key aspects of production to the local setting might well take a step jump upwards in response to the new sense of vulnerability and to a general review of just-in-time supply chains. While the capabilities of 3dp are just at the threshold of mass application, it may well form a major component in the transformation of the production sectors. What is already clear is the real potential to enable the ‘just-in-time’ manufacturing of components *on site* without depending on extended physical supply chains. These new techniques and approaches have the potential to throw up entirely new kinds of products and production systems in ways that are as yet genuinely futuristic.

Even before the possibilities of 3dp arrive, the possibility of using it to replace international supply chains had already been identified in those sectors where fashion and the need quickly to follow trends gives market advantage. The recent issues surrounding the Leicester virus outbreak open a window on what – on the downside – this process might involve for fast fashion (O’Connor, 2020). In part, this reflects a change in the price of labour in those countries in the Far East whose wage rates have been responding to the emergence of a new better paid middle-class. Even where opportunities continue for global clothing and textile producers to find cheap labour, these may not be so attractive on the other side of the pandemic.

Another of the possibilities of the pandemic episode is that it might lead to more intensive consideration of the option of bring production back home to the UK.

However, returning this could have devastating economic impacts on the countries thus far used for their cheap labour: for example, “*Global remittances are projected to decline sharply by about 20 percent in 2020 due to the economic crisis induced by the Covid-19 pandemic and shutdown*” (WORLD, 2020), this may result in “*undoing years of progress in curbing global poverty*” (ECONOMIST, 2020b). So, simply de-linking the supply chains, and localising production, may end up in more parts of the world having a greater risk of contagious illnesses, exacerbating the risks of future pandemics.

The question arising from this necessarily selective review of what changes to domestic labour markets COVID-10 will bring is, ‘on the other side of the crisis what will work look like, what jobs will survive, what will be lost and how can the right kinds of jobs for the future be created’? If the answer to this is ‘more of the same before the event’ then we are failing to address the downside of where we were going.

5.4 Conditions for Labour: Growing Insecurity and Shifting Skills Needs

5.4.1 The job and income losses of lockdown

One of the most significant Covid-19 shocks to date - apart from the excess deaths it caused - is how many workers have lost their jobs and, as we saw in Section 1.3, how many more will be joining them. The Government furlough scheme has done a great deal to cushion the immediate impact on the workforce to this point: “*As of June 28, 2020, approximately 9.3 million jobs, from 1.1 million different employers were furloughed*”⁶⁸. The Claimant Count measure of UK unemployment (as of 16 June data) had *increased in May 2020 to 2.8 million. This represented a monthly increase of 23.3% and an increase of 125.9%, or 1.6 million since March 2020*” (ONS, 2020d). The US data are staggering - with 47.2% of adults jobless as of early July (Li, 2020). Given the redundancies being announced late in June the expectation is that this trend will continue.

Relating back to what was said earlier about the generalised process of inserting more worker-replacing technologies into the workplace, this scale of severance presents a clear opportunity for a more gradual process to be stepped up. Once the worker-occupants of a given job task are no longer present, consultation and potential compensatory payments drop out. Whether technology is involved or not ‘hired back’ workers can be faced with new terms and conditions. We are seeing clear evidence of this approach already with British Airways (Fenton, 2020) and Ryanair (Heaphy, 2020) seeking to re-recruit furloughed staff on less favourable terms and conditions. Any transformation that was going on or under consideration beforehand will find a context ripe for acceleration as the recovery from the pandemic proceeds.

By income group and by occupation, the effects of both the virus and lockdown have varied enormously and so will the longer run impacts be when recovery takes place. Early estimates were that around 50 percent of those in the higher income brackets could work from home (as compared with 10 percent of those on low incomes). Not all of those will be continuing to do so. By the week of July 3 those still working from home had “*dropped to 29%, from 33%*” (ONS, 2020c): employers may have begun to call people back but for many this may be a voluntary return in the face of “*a strain on personal relationships (21%) or that “working from home was difficult (13%)”*”.

⁶⁸ <https://www.statista.com/statistics/1116638/uk-number-of-people-on-furlough/>

By employee group, it is clear where the biggest hit of both the virus and lockdown has landed to date - on those lower income earners *who cannot work from home*. In terms of propensity to be infected an ONS study of potential exposure (ONS, 2020e, ONS, 2020a) showed that the bulk were in those activities where close contact was essential – nurses, medical practitioners, nursing auxiliaries, care workers and home carers and AHPs, physiotherapists, occupational therapists, ambulance staff and so on. With the exception of the doctors, the bulk of these are workers in occupations where wages are low. They will still be in high demand.

Beyond the core of these ‘essential health-based services’ directly involved in care; low paid workers are the most affected (by infection risk and) by lockdown either directly or indirectly (employees in cafes and restaurants and the high streets and public transport generally, security guards, construction workers, plant operatives, cleaners, taxi drivers, bus drivers, chefs and retail workers). An ONS Report for 26th June shows, how many of these people were in jobs that put them in harm’s way.

“Among women, four specific occupations had raised rates of death involving Covid-19, including sales and retail assistants (15.7 deaths per 100,000 women, or 64 deaths). Because of the higher number of deaths among men, 17 specific occupations were found to have raised rates of death involving Covid-19, some of which included: taxi drivers and chauffeurs (65.3 deaths per 100,000; 134 deaths); bus and coach drivers (44.2 deaths per 100,000; 53 deaths); chefs (56.8 deaths per 100,000; 49 deaths); and sales and retail assistants (34.2 deaths per 100,000; 43 deaths).” (ONS, 2020a)

Many people in precarious forms of employment will also be among those who have either fallen through the net of the Chancellor’s support schemes or are waiting for the benefit system to respond. As we move from lockdown to recovery, the government has been quick to restore punitive sanctions in the context of welfare benefits (a move that surely cannot be justified where the number of available jobs has fallen so drastically). In this context the evidence is that: *“More than 3 million people in Britain are going hungry because of the coronavirus crisis, according to new research showing that stark drops in income have pushed many families into poverty during the lockdown”* (Staton and Evans, 2020). With the evidence now emerging of the long run damage to employment prospects, it might be reasonable to expect that this is destined to increase.

5.4.2 A wider scale of negative impacts right across the occupational spectrum

Evidence from both the US and the UK is that the employment and wellbeing impact of Covid-19 may be felt across a wide spectrum of society. Those at the top of the salaries/savings ladder, still remaining fully employed, or currently being ‘furloughed’ (and receiving up to a 80% of their wage/salary up to a fixed monthly ceiling), may well be able to absorb the impact in the short term. Many of them will, however, be seriously concerned about what happens to their employment situation when the state subsidy drops out and they have to re-engage with their employers.

The Office for Budget Responsibility report of 14th April (OBR, 2020) offered little comfort with a forecast of a dramatic fall in output and a massive rise in unemployment over the next two quarters. Nothing since then will have improved that dire prospect. ONS figures (June 22) reported *“The monthly decline in GDP in April 2020 (-20.4%) is three times greater than the fall experienced during the 2008 to 2009 economic downturn. During the global financial crisis, from the peak in February 2008 to the lowest point of March 2009, a total of 13 months, GDP contracted 6.9%”* (ONS, 2020b). This was the sharpest decline in more than 40 years (Elliott, 2020).

The sudden shift from job retention to redundancy for many people whose jobs were assured at the start of lockdown, will see the damage from the pandemic impacting on people whose ex-ante expectations

allowed them to take on significant household and mortgage debt . These are generally the people whose jobs are those normally the ones young people would hope to occupy in their future careers. They occupy the upper middle range of the income distribution - accountants, lawyers, marketing executives, events managers, Public Relations and HR specialists. Normally, their position in the occupational hierarchy gives them significant resilience in times of economic stress.

This time, however, they are right to feel vulnerable that they are facing the uncertain future. It is a feature of this group they are normally highly geared with mortgage debt and loan finance for cars and luxuries like expensive holidays. They are critically important to the economy for their propensity to spend from this assumed position of security. Lose this, and the economy has a serious demand side shortfall that will impact across the board. The Chancellor of the Exchequer has a difficult decision to make about the post-lockdown transition in respect of this set and it is no surprise that late in June the 'economy' began to overtake the public health in government messaging – not without opposition from the scientific community (Craig, 2020). Restoring the 'relatively normal' on 4th July was a gamble because the worries about the economy in part overrode the precautionary principle about the infection risks, particularly when the UK ability to 'track and trace' has been so poor, and remains without a viable working smartphone App (Burgess, 2020).

Loss of jobs by those normally at the very bottom of the labour market will have much less impact on demand side shortfalls in the level of consumer income. However, the people involved have been much less able to build up financial resilience and may quickly descend into poverty. Younger workers among them, especially those leaving education and entering the labour market, have been most likely to lose their jobs in this crisis. For the young starting out there will be a high price to pay - thrusting many of them into a situation where many need (if they can) to return to the family home. After lockdown, these young starters will be seeking to find work against a rapid rise in general unemployment. The lessons of the 1980s about how to absorb the young into work or additional skills and learning will need to be re-examined to see how to deal with the problem.

Research carried out by Kings College and Ipsos Mori (April 9) noted that, while the policy of lockdown was broadly accepted, there were clear anxiety impacts:

“Half of those surveyed (49%) said they had felt more anxious and depressed than normal. Over a third (38%) said they were having trouble sleeping and more than a fifth of people (22%) said they were already facing significant money problems or were almost certain to do so in the near future. Among workers, 16% said they had either already lost their job or were very likely to do so in the near future.” (KCL, 2020)

It is absolutely clear that a very substantial share of the working population is more vulnerable than ever before to shocks of any kind . More than this; since average wages have been flat in real terms since 2008 there has been little opportunity for most people to build up any substantial form of financial resilience . Sounding the alarm as job losses mount⁶⁹, the Resolution Foundation called on the government to continue subsidising the wages of workers in the sectors of the economy hardest hit by the Covid-19 crisis until at least the end of 2021 (Partington, 2020).

5.4.3 Impacts on precarious jobs in the platform and gig economy

In an earlier paper we pointed out that around 25 to 30% of employees in employment were to be found in low-paid, non-standard, and often precarious jobs. We have just shown that these are likely to be experiencing the most damaging short-term impact of the lockdown measures. Many of these workers are

⁶⁹ <https://www.theguardian.com/business/job-losses>

attached to the so-called 'platform economy' - a global marketplace for labour articulated by the Internet to put workers across the world in a position to perform online service tasks of a relatively simple nature, or (for example with Uber) to be reliant on a platform to secure work, but also being self-employed and without the usual protections of employment contracts.

The platform economy was just one part of a wholly new re-shaping feature for employment before the pandemic – with the rise of what has variously been called the *gig economy*, *the sharing economy*, *digital work*, *on-demand work*, and *platform work*⁷⁰. Difficult concisely to define, it is characterised by the prevalence of short-term contracts or freelance work, as opposed to permanent jobs, usually where relations between workers and employers are intermittent and where most work lies outside the stability and protection of a clear contract. With these new flexibilities, the labour market is much more sensitive/responsive – contingent to - changes in the overall economy.

Part of the rationale for this form of labour is that downswings see a faster response time - with labour much more easily laid-off and sub-contracts adjusted to the new circumstances. Upswings can also be followed more flexibly - but probably at a rather slower rate. For workers in this marketplace a sense of how quickly their fortunes could be dramatically altered has become normal since they find themselves invited to *shift their contract status* with reference to competition coming from other parts of the world – often by becoming temporary, accepting zero hours, or going into self –employment. By this means, employment is rendered more *precarious* for vastly increased numbers of people. A new class term – the *precariat* (Standing, 2020) – living in poverty while still being in employment, has been adopted to reflect this⁷¹.

As we entered the Covid-19 crisis, a large share of those in work were, then, already in a precarious situation and the future for them lacked any hope of sustainability or financial resilience. Many workers were dependent on a low wage just to pay their bills, put food on the table and get by. Most had no employer-based back-up system to support them when the pandemic arrived. With Covid-19, as we have seen, this was the set that had to continue to go to work regardless of the risk to them, to their families and to their friends and neighbours. They did not have the luxury of staying at home or of avoiding public transport. It cannot, then, have been a surprise that this is the segment of the population that was earliest and hardest hit by the virus and that is figuring in the new secondary outbreaks.

As we turn to look towards the future, we need to ask ourselves as a society whether – regardless of whether or not market approaches demand its existence – we are prepared to take the responsibility for the costs of the precarious labour market not just to the individuals involved but to society at large. We

⁷⁰ “At its core the gig economy is based on application driven platforms that dole out work in parcels – driving, delivering, cleaning are the most popular – where work is sourced and delivered over the internet/cloud. It is modern form of piece work – paid by piece delivered/order fulfilled. It can also apply more widely to any work contracted over the internet and carried out remotely.” KOBIE, N. 2018. *What is the gig economy and why is it so controversial?* Wired.com. Published September 14. Available: <https://www.wired.co.uk/article/what-is-the-gig-economy-meaning-definition-why-is-it-called-gig-economy>. [Accessed July 6 2020].

⁷¹ “Forbes in its *Global Analysis (2015)* in highlighting the rise of what it called the “temporary workers” phenomenon made the following arresting statement: “Mass hiring of temporary workers is not just a retail thing. It’s happening everywhere – all classes of work from the executive suite to field labourers in every industry across the globe”. In a study of the *US Workforce 2020* the following are estimates of the use of temporary workers by different sectors showing the penetration of this form of working. In all, 82% of Retail employers used temporary workers. The equivalent for Financial Services was 81%; Healthcare 81% and Public Service Agencies 86%. It is suggested that the total share of self-employed workers in the US economy may rise to as much as 40 percent by 2020”. Cited in LLOYD, P. E. 2019. *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Peter Lloyd Associates. Published December. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed February 3 2020].

entered the pandemic with a rate of inequality among the highest in the advanced nations. Covid-19 has both revealed the extent of this and the direct and collateral costs of its existence.

Having discovered that our neighbour's health is important to our own in ways we could not have imagined, this is surely a time to look closely at whether or not the continued, unregulated growth of a fast-growing segment of the workforce dependent on precarious work is acceptable. If, on recovery, jobs are to grow again but a substantial share of them are to be precarious in the ways just described then we should take into account the social and political costs.

5.4.4 Shifting skills needs

Conditions for middle income workers used to stable and sustainable jobs had been undergoing change for some time before the pandemic hit. Technological innovations were already having a significant impact. The process known as “hollowing out” was seeing many of the more established clerical, secretarial and administrative jobs in both the private and public sector giving way to automated office solutions. Futures forecasters were already predicting further job replacement – particularly in the services, both private and public.

During 2019, however, there were signs from among many major employers that they were suffering skills shortages (ONS, 2019). Gaps being identified were not in these more routine activities that the new technologies were continuing to affect, but for what they described as “soft” skills (EDGE, 2019). Their issue appeared to be that they could not recruit the intelligent; adaptable and socially competent people they were finding themselves short of. Despite the more gloomy forecasts of job losses in some of the core sectors of the economy, unemployment rates were generally down and there was no longer a pool of people they could filter to find staff for some key areas of shortage.

The advent of the pandemic has changed all that. Low unemployment rates are a thing of the past and the demand side for labour has been transformed. Businesses are looking to shed labour rather than recruit and uncertainty surrounds the whole situation. The question of the moment is not what skills sets do we need to add; it is more one of ‘as we shed staff in numbers, which staff and skills shall we keep?’ It is too early to tell but a reasonable prospect is that the ‘hollowing out’ process will continue and it will be middle and upper management who might be called upon to leave the organisation.

Past experience suggests that when a shake-out of workers in this set takes place (as with de-industrialisation episodes in the past) workers separated from higher status job tend, in looking for work, to “trade down” the labour market in jobs of a lesser standing. In this ‘bump down’ process they may find themselves replacing or shutting out workers in lower skilled or disadvantaged groups. It may be that the unemployment outcomes that result do not appear for the set made redundant but in lower status workers – adding to the pool of the already disadvantaged.

One area where pre-virus employment trends had already seen a dramatic shedding of labour in the UK was the public service sector. A decade of politically motivated austerity resulted in swingeing annual cuts in the Local Authorities and Public Health. Tragically, many areas of the NHS saw a hollowing out of a cohort of what in regular times would have been regarded as stable; secure and sustainable jobs (Singh, 2020). The drive for privatisation had seen a transfer of what would have been job openings in the public sector to a cluster of private-for-profit enterprises. Many expanded by means of non-standard, low wage employment contracts.

Restoring the public finances after the Financial Crash had a far greater impact on the middle segment of the UK labour market than those slower moving changes coming from the new technologies. Here, as people are encouraged to “clap for the NHS and key workers (quickly put in place, and just as quickly

forgotten (BBC, 2020c)” public pressures to change the conditions of employees may have acquired much greater political weight and we may hope for some re-evaluation in terms of wages and conditions.

5.4.5 Summary: A bleak scenario of job loss

The prospect before the UK, most analysts suggest for two years at the least, is for much less available work and significantly more unemployment with suggestions of up to 5 million. Many of those affected will be young and well-educated – leaving schools and colleges with little prospect of a start in the workforce as well as those on the first rungs of the career ladder being suddenly separated from their jobs. There are bound, however, to be large numbers with lower educational achievement on leaving school who will struggle to get a start.

An entire cohort of 18-24 year olds is going to have their prospects seriously blighted. They will be joining hundreds of thousands in the more mature age groups – singles, family formers, mature and experienced employees and those close to retirement. Many of these will have had no prior experience of losing their job and will be thrust into job search and Universal Credit for the first time. The workers for whom severance can come quickly and with no cost to the employer will be those already in the precarious labour market where contract conditions carry no guarantees beyond the work already in hand. As was pointed out earlier, one of the attractive features of the non-standard, zero-hours contract to employers is that hiring and firing can be matched flexibly and virtually instantaneously to demand shifts. The post-virus recession will see the earliest and sharpest rises in this subset.

With the levels of demand in the economy falling so sharply and deeply in response to lockdown, it is also reasonable to expect severe (and mostly unheard of) unemployment among early to mid-career professionals in things like accountancy, finance, law, management consultancy, events management, media (theatre and performance arts) and so on. There are already harrowing tales, so far mostly from the US – about queues for foodbanks that see applicants waiting in line in their expensive SUVs, and not just a focus on food poverty in poor countries (Lutz, 2020). A number of these losses, such as culture (Pickford, 2020, Bakare, 2020) and restaurants, arise directly from the pandemic itself where audiences and crowds are proscribed any relaxation⁷² is strictly dependent on social distance⁷³.

The sharp contraction of the air travel industry, where high seat occupancy is a key part of the business model, falls into this set with pressures on both airside and landside jobs (Philip and Mulier, 2020) of all kinds now coming through. Similarly, jobs in the public transport sector from tram systems, through train travel to buses are having to speculate on how much custom will return even when the current virus episode is over (Vella, 2020). Many of these jobs will be expected to come back at this stage – but the concern is that in recession not all will and even then people may have decided to shift their views on the necessity of travel when other lifestyle choices and modes of interaction have been seen to work well in practice.

There is considerable debate on the shape of the recovery period and the duration of the worst effects. We hear of V-shaped (Stubley, 2020) and U-shaped, or W or L or whatever (Hulbert, 2020, REUTERS, 2020)). One concern is that L-shaped may be prolonged on the way to U. It is unheard of for all the elements of the global and national economy to be simultaneously shut down – not as some kind of economic or financial system failure but as a necessary act of policy. The hope is that pick up will be swift, but the fear remains

⁷² And, relaxation involves not just relaxing the rules of distance, but also relaxing peoples’ fears about going to a restaurant again “A study conducted by food hygiene rating website SOTD (Scores on The Doors) has highlighted that 30% of consumers are reportedly nervous to set foot back into restaurants.” <https://realbusiness.co.uk/covid-19-restaurants/>

⁷³ See the previous chapter for a discussion over the mess concerning social distancing.

that the combined loss of demand and supply nationally and globally will take some time to become re-coupled and start to create jobs.

Since manufacturing generally was not in good shape before the virus on a global basis (China's spectacular GDP growth rates having already fallen back from previous spectacular highs), the recession that many were already predicting on the non-pandemic economy may have been "midwived" into being by Covid-19. Consolidation was already afoot in industries that have been the earliest to declare redundancies in lockdown - vehicles, aircraft, aero-engines for example. The question is, facing this scenario, what short-term and long-term policies are needed to cope with it? Cope we must, since the portents of not doing so are dire.

5.5 Making an Opportunity out of a Crisis

5.5.1 Change will come

Some substantial changes will be needed for the future. Two books, written before the pandemic – *Capital and Ideology* (Piketty, 2020) and *Angrynomics* (Lonergan and Blyth, 2020) – made it clear that all was not well in the 'old normal'. Piketty was warning that inequality was widespread; pernicious and dangerous, while Lonergan and Blyth detailed a combination of adverse economic developments with manifest unfairness that has made many people angry. No wonder, once people had time to reflect, there seemed little support for the idea of going back. With five months of the pandemic behind us, the argument that, as *Angrynomics* puts it using computer systems terminology, Capitalism 3.0 was not working for everyone (except the super-rich) seems easier to take on board.

When the virus landed there had not yet been a full recovery from the financial crash of 2008. Austerity was still in place, and there were dark warnings of a future recession. When Trump became President of the US and Johnson became Prime Minister of the UK, the resentment of those who felt "left behind" (BBC, 2020g) was a key mobilising factor among those who voted for them. The old working classes who had earlier seen their worlds upended by deindustrialisation` had come to believe that the parties that traditionally represented them had moved on (Wolf, 2020). They were now motivated by the interests of highly educated metropolitan and cosmopolitan voters and the ethnic and cultural minorities. What was a problem for some became more of a problem for all as good governance became hard to find once the pandemic arrived on both sides of the Atlantic ocean.

Some trends coming through were already making people anxious before Covid-19. There was a concern that the new digital technologies would put increasing numbers of jobs at risk and destroy skills that had taken years to build, although Tim Harford advised` caution about whether mass job destruction will take place: "*will the machines take all the jobs in the coming decade? No, and that remains an unhelpful way to phrase the question. Machines encroach on tasks, and we reorganise our jobs in response, becoming more productive as a result*" (Harford, 2020a). It may in the end be that Covid-19 is a greater job destroyer than digital technologies.

Nevertheless, as we have pointed out throughout the paper, the pandemic is likely to have seen an acceleration of some of the more challenging features of the "old" normal. In particular, the new AI, robotics and internet technologies that were altering high streets and certain workplaces and the communities depending on them may well have seen their penetration accelerated. A balanced view, such as that of Tim Harford above, would suggest that the new technologies in general will in the longer run create more jobs than that they destroy.

However, in the short term, their disruptive effects might well give rise to a greater polarisation of society. The prospects are that – without some basic changes taking place – this destabilising process will increase will serious social and political ramifications. In reacting to these short-run disruptions the opportunity exists – to lay down some critical new features for the long run. Cope with the immediate issue we must, but it is vital to think and plan strategically to break out of the path dependence⁷⁴ that was leading us into trouble in the first place.

5.5.2 A crisis of work and jobs

In this paper, we have been largely focused on work. Although there is a much wider agenda for futures, we shall make our contribution here. We set out in Section One what just a single day of news told us about the scale of the crisis unfolding before us. We logged 12,000 job losses reported in one afternoon. This will be probably be the first dramatic step in a process that, as furlough comes to an end, will mount up dramatically. What is abundantly clear is that the numbers of jobs available in the post pandemic economy will be drastically reduced, and even the most optimistic forecasts suggest that it will be up to two years before recovery. It would not be surprising to see that – unless we move to alter it – too many of the newly available jobs would be for low wage work and non-standard contracts.

Many of those hoping to return to their jobs will find that they have been closed out. Throughout, it seems clear that these losses will be selective by occupation, by social group and by place. Those people and places that came into the pandemic with little resilience will probably experience the most serious outfall. Young people in particular will be badly affected (Dias et al., 2020). Their education and training pathways have been brutally disrupted and the jobs they had hoped to enter for the first time will have been substantially reduced.

What is needed in the short term is a set of macroeconomic measures to boost the demand side and help the economy recover. There will surely also be some quickly assembled programs (redolent of those applied in the early 1980s) to absorb the newly unemployed (particularly the young) into ‘meaningful’ activity⁷⁵. But planning for the longer run, it will be important to take a strategic view that moves from firefighting to be framed around a re-envisioning of what we mean by ‘work’, its characteristics, and its purpose. While the state moves to activate those forced out of work, it is vital to take a *significantly different view of skills*. Simply to attach the young as trainees to existing businesses is clearly one way to go but in so doing we need a wider strategy for the development of flexible, adaptable, and transferable skills that existing companies may not be in a position to offer.

As we move forward through the Fourth Industrial Revolution the skills in short supply will be both technical and specific but - perhaps more importantly - what (as a classic misnomer) are called ‘soft skills’ (OECD, 2019). What we must take early steps to avoid is any further movement toward contingent and precarious work that makes people and place vulnerable and that as we have seen, can thrust high social cost on society at large. This is a lesson that the experience of Covid-19 has surely taught us – our neighbour’s physical; mental and financial health is something that has to concern us all (Sandbu, 2020).

⁷⁴ “Path dependence explains how the set of decisions people face for any given circumstance is limited by the decisions they have made in the past or by the events that they experienced, even though past circumstances may no longer be relevant”; https://en.wikipedia.org/wiki/Path_dependence

⁷⁵ This chapter was completed on the evening of July 7, prior to the Chancellor of the Exchequer making a statement to the House of Commons on July 8.

5.5.3 Building new skills for the future out of the crisis

A strong approach to securing employment under the Fourth Industrial Revolution is to build new skills into the population at large and to make provision for people to transition to new work roles⁷⁶. But education (apart from schools opening questions) has been hardly visible on the government agenda for recovery. What needs to be thought through for the long term is; what sort of skills, in whose interests, and how can those who acquire them have some prospect for progression and decent wages? This needs to be regarded as an investment proposition with at least as much weight as Green Energy. We need to take note, while doing this, that work in the contingent and precarious labour market offers little scope for progression and learning. This is helpful neither to the employees involved nor for the wellbeing of the nation.

Allowing the open, globalised marketplace to determine how labour is used and rewarded may fit with liberal economic theory but it also allows the externalities that derive from it to be transferred to the public domain – especially in times like the present. The conditions of the “key workers” is not so much a matter of skills but of terms and conditions and wages. Privatisations – particularly in the care sector – need closer scrutiny where using this method to achieve public sector cost savings can turn out, in times like the present, to be a dangerous false economy where public service workers are transferred to the low paid, contingent labour market.

Looking forward, the debate about skills in general needs to move from the specific (such as the engineers’ domain), to the general, to those so-called ‘soft skills’. In doing this, education should move to be recognised as the “*gold standard*” and enhance creativity in young people (Listen to Andreas Schleicher, the head of Education at OECD, talking about this issue (Schleicher, 2017)). In the technological sphere, hybrid skills are going to be at a premium. Bringing together AI, Machine Learning and Human Intelligence is the way to go for a world where even Microsoft suggests that; “*65 percent of students today will be doing jobs that currently do not exist*”. We must do more to use the capabilities of the new technologies to teach and learn differently. This is something that the experience of Covid-19 has presented us with as a positive. The virus has provoked a move to transfer learning of all kinds into online and blended forms.

In the same way, *communication skills* – vital in a rapidly changing information and communication world – are being comprehensively re-learned in association with the new technologies⁷⁷. Once again, the pandemic has taken us into new communications methodologies. People across the board have had to step up to use video conferencing, social media, blog, vlog and so on – not just the young. The world of publication has shifted sharply – what was the ‘grey’ literature has become the online source for following a fast-moving set of events forcing the slower publishing methodologies to respond (faster peer review turnaround times). The internet connectivity of the globe has had its upside in enabling us quickly to learn the lessons from others. The impact of the virus has, then, like any disaster, led to innovative opportunities

⁷⁶ The World Economic Forum Paper “*Towards a Reskilling Revolution: A Future of Jobs for All*” suggests breaking down jobs into a series of relevant, measurable, component parts in order to then systematically compare them and identify any gaps in knowledge, skills and experience. They use this to look at how “transitioning out of a particular job will be able to bring those capacities into any new roles. The idea has a complex matching methodology to support it identifies 958 types of jobs arrayed across a “job fit” matrix to produce “job zones” as clusters of cognate, transferable skills as a way of “maximizing productive re-deployment opportunities for workers”. WEF. 2018. *Towards a Reskilling Revolution: A Future of Jobs for All*. World Economic Forum. Published January. Available: http://www3.weforum.org/docs/WEF_FOW_Reskilling_Revolution.pdf. [Accessed May 9 2018].

⁷⁷ Gaming has emerged as a powerful means to support skill building for wider behavioural skills. People need to be put in a *convivial space to come together and learn together* to make a difference. Teachers need to be provided with the tools to add gaming and group communication skills to the curriculum. (Minecraft is an early exemplar of what can be achieved and enthusiastically adopted by young people as a game and learning tool).

– after all, there is little to be gained by returning to a ‘former normal’ if it means inviting another pandemic in through open doors by failing to learn.

The skills people should have - or should be able realistically to aspire to have - need to be those that have some meaning beyond the hope of a pay cheque in a local context where jobs are poor quality and wages are low. We now know to our cost where that can lead. For future jobs under the digital transformation, an educated; flexible and adaptable workforce ready to step up is essential. Now, in the challenging short term as we have to spend public funds to activate a pool of the unemployed after the pandemic, is the time to raise the game. Activate *with open learning* has to be the leitmotif. This is something the state education and training policy schemes have a golden opportunity to set in place.

An essential feature of moving in this direction is that it must be put in place *locally*. One of the clear failures of governance in lockdown has been an obsession with central remedies applied centrally and with recourse to private companies to deliver geographically dispersed outcomes. If the failed “track and trace” experiment has taught us anything it was that an understanding of the *local context is critical for effectiveness*. The same should be true for the policies that seek to cope with sharply rising (particularly youth) unemployment.

The Active Labour Market Policies (ALMP) of the European Union during earlier phases of mass unemployment were successful because they were conceived centrally but articulated *locally*. As part of this, the needs of local employers should be met but not where there is a danger of simply feeding the “low level skills equilibrium” (Green, 2012) that traps some places into being a dominantly low skill environment. There needs to be a direct programme alongside the business-led agenda to raise skills; confidence and aspirations in the workforce⁷⁸ regardless of the shape of the local economy.

The gloomy scenarios for the future of jobs; work and employment that post-pandemic commentators might offer us should not stand in the way of policy interventions to invest in high level skills. People generally should be given the chance to defeat the doom-mongers’ views of their prospects. This demands more than employment-centred efforts – seeking to expand the wider capabilities and capacities of all the people to make something of their lives (regardless of the job or caring role they currently occupy). The more challenging the future - not just of work but of good living - the more important it is that from early years to adulthood, people should be encouraged and helped to acquire and continue to acquire more education, skills and competencies. *Lifelong learning* is essential to this - not just as an empty slogan - but as a practical policy mission. The McKinsey Report gives this its strong emphasis as a policy recommendation:

“The old model of front-loading education early in life needs to give way to lifelong learning. Training and education can no longer end when workers are in their twenties and carry them through the decades.” (Lund et al., 2019)

The workers of the post-pandemic period will need continuous support to navigate a fast-changing future labour market. Going forward, we clearly need a new kind of supportive infrastructure *with a significant*

⁷⁸ The standard England and Wales approach to policy intervention for employment and skills leaves only limited scope for the local perspective. Policy (as well as data) is generally designed to work from top down: National policy preferences (national curriculum, STEM, PISA-following, supply side skills measures, apprenticeships); Sector focus (sector skills councils, sector employment forecasting) and cascaded funds and prescribed measures downwards (college and school funding streams, LEP skills priorities etc). The local input is prescribed as being primarily business-led - attached to skills shortages and future needs as the existing cohort of private sector enterprises sees it. Intervention will need to be much more refined and genuinely bottom up-informed if we are to avoid places and their people suffering alienation and the political consequences that arise from it.

degree of local sensitivity that enables workers generally to have some confidence in their future economic circumstances.

Taking this wider view of skill and ‘work readiness’ must also impact on attitudes for access to welfare benefits (Conway and Wallace-Stephens, 2019). Training those out of work to access the sort of jobs and work that the least favoured places have at present and will most likely have in the post virus future (contingent, dependent, low wage, low skill, low sustainability) makes less sense than ever (and punishing them for failure is scandalous)⁷⁹. A policy for lifelong learning and human centred skills development is required that is an *end in itself*. In work, out of work, aspiring to work, finished with work – all should be participants in the drive for personal and social betterment in the search for the ‘Good Society’. There is much current talk of Universal Basic Income (Tapsfield et al., 2020) or of the Minimum Income Guarantee (Stirling and Arnold, 2020) – either or both should be pursued *in the context of a strongly linked lifelong learning framework*.

Thinking out of the box is essential. Imagine, for example, that “*human-centred*”, “*environmentally sustainable*” and “*socially empathic*” were raised to the status of key design principles for education and skills training. Imagine that they were given the same order of importance in driving the system as being “*business-led*” has been since the Thatcher-Reagan era. We would be looking at work and employment from a very different philosophical starting point. The evidence of this moment is that things are increasingly being turned upside down by forces about which we seem to have only partial understanding – let alone have control over. Why not try a little ‘turning upside down’ on behalf of society at large – beginning from principles like human dignity, freedom, democracy, equality, the rule of law and respect for equity citizen rights? Amartya Sen is clear about this: “*A concern with equity in crisis management would lessen suffering in many countries now and offer new ideas to inspire us to build a less unequal world in the future. Since we are less than half way into the crisis, dare we hope this can still happen?*” (Sen, 2020).

Why not consider the post pandemic digital transformation as a golden opportunity (Thornhill, 2020) to design a *human-centred* future as well as an engine for personal and corporate wealth creation? Changing the context for the debate would be a vital first step.

5.6 Chapter bibliography

- BAKARE, L. 2020. *UK could become 'cultural wasteland' due to coronavirus, say leading artists*. Guardian (UK). Published April 26. Available: <https://www.theguardian.com/world/2020/apr/26/uk-could-become-cultural-wasteland-due-to-coronavirus-say-artists>. [Accessed April 27 2020].
- BBC. 2020a. *Australia cyber attacks: PM Morrison warns of 'sophisticated' state hack*. British Broadcasting Corporation (BBC). Published June 19. Available: <https://www.bbc.co.uk/news/world-australia-46096768>. [Accessed June 19 2020].
- BBC. 2020b. *Boris Johnson: Economy speech fact-checked*. British Broadcasting Corporation (BBC). Published June 30. Available: <https://www.bbc.co.uk/news/53236921>. [Accessed July 1 2020].

⁷⁹ Responses to what has just been said about the risks to democracy and society that come from having large portions of society suffering alienation and exclusion and being cut off from the world of work, are being framed in some quarters. The idea of Universal Basic Income (UBI) is being increasingly widely promoted – major experiments in Norway and Finland and being piloted in Scotland). This is a form of unconditional income offered to every citizen as a component of social security as part of a welfare regime. Significantly for us here, payment does not require the recipient to work or look for work and is independent of any other income.

- BBC. 2020c. *Coronavirus: Call for UK-wide clap for key workers on NHS anniversary*. British Broadcasting Corporation (BBC). Published June 10. Available: <https://www.bbc.co.uk/news/uk-52959591>. [Accessed June 11 2020].
- BBC. 2020d. *Coronavirus: Face coverings to be mandatory on public transport*. British Broadcasting Corporation (BBC). Published June 4. Available: <https://www.bbc.co.uk/news/uk-52927089>. [Accessed June 4 2020].
- BBC. 2020e. *Coronavirus: London schools use 3D printers for NHS visors*. British Broadcasting Corporation (BBC). Published April 3. Available: <https://www.bbc.co.uk/news/av/uk-england-london-52160563/coronavirus-london-schools-use-3d-printers-for-nhs-visors>. [Accessed April 4 2020].
- BBC. 2020f. *Coronavirus: UK firms slash almost 12,000 jobs in two days*. British Broadcasting Corporation (BBC). Published July 1. Available: <https://www.bbc.co.uk/news/business-53247787>. [Accessed July 1 2020].
- BBC. 2020g. *'Disappointing' progress on social mobility in England*. British Broadcasting Corporation (BBC). Published June 10. Available: <https://www.bbc.co.uk/news/uk-politics-52982440>. [Accessed June 10 2020].
- BBC. 2020h. *Leicester and Cleckheaton see coronavirus 'outbreak'*. British Broadcasting Corporation (BBC). Published July 18. Available: <https://www.bbc.co.uk/news/uk-england-leicestershire-53100321>. [Accessed July 19 2020].
- BBC. 2020i. *Primark presses ahead with new store openings*. British Broadcasting Corporation (BBC). Published July 2. Available: <https://www.bbc.co.uk/news/business-53261037>. [Accessed July 2 2020].
- BBC. 2020j. *Shopping centre giant Intu enters administration*. British Broadcasting Corporation (BBC). Published June 26. Available: <https://www.bbc.co.uk/news/business-53195980>. [Accessed July 2 2020].
- BLACKALL, M. & CAMPBELL, L. 2020. *UK coronavirus: pubs and hair salons reopen in England as lockdown eases - as it happened*. Guardian (UK). Published July 4. Available: <https://www.theguardian.com/world/live/2020/jul/04/uk-coronavirus-live-pubs-and-hair-salons-reopen-in-england-as-lockdown-eases-latest-updates>. [Accessed July 4 2020].
- BRIGHAM, S. 2020. *The UK arts rescue package is a huge relief – but the devil will be in the detail*. Guardian (UK). Published July 6. Available: <https://www.theguardian.com/commentisfree/2020/jul/06/arts-recovery-package-sector>. [Accessed July 6 2020].
- BURGESS, M. 2020. *Why the NHS Covid-19 contact tracing app failed*. Wired.com. Published June 19. Available: <https://www.wired.co.uk/article/nhs-tracing-app-scrapped-apple-google-uk>. [Accessed June 30 2020].
- CONWAY, R. & WALLACE-STEPHENS, F. 2019. *Rethinking the safety net for 21st century workers*. Royal Society for Arts. Published August 15. Available: <https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2019/08/economic-safety-net>. [Accessed January 5 2020].
- COUGHLAN, S. 2020. *PM Boris Johnson promising £1bn to rebuild crumbling schools*. British Broadcasting Corporation (BBC). Published June 29. Available: <https://www.bbc.co.uk/news/education-53215221>. [Accessed June 29 2020].

- CRAIG, J. 2020. *Coronavirus: Scientific advisers admit concerns as Boris Johnson eases lockdown*. Sky.com. Published June 24. Available: <https://news.sky.com/story/coronavirus-scientific-advisers-distance-themselves-from-pms-lockdown-easing-12013442>. [Accessed June 24 2020].
- DAVENPORT, C., FARQUHARSON, C., RASUL, I., et al. 2020. *The geographic impact of the COVID-19 crisis will be diffuse and hard to manage*. Institute for Fiscal Studies. Published June 15. Available: <https://www.ifs.org.uk/publications/14884>. [Accessed June 21 2020].
- DIAS, M. C., JOYCE, R. & KEILLER, A. N. 2020. *COVID-19 and the career prospects of young people*. Institute for Fiscal Studies. Published July 3. Available: <https://www.ifs.org.uk/publications/14914>. [Accessed July 6 2020].
- DOWARD, J. 2020. *Only 13% of UK working parents want to go back to 'the old normal'*. Guardian (UK). Published June 28. Available: <https://www.theguardian.com/world/2020/jun/28/only-13-of-uk-working-parents-want-to-go-back-to-the-old-normal>. [Accessed June 28 2020].
- ECONOMIST. 2011. *Print me a Stradivarius: How a new manufacturing technology will change the world*. Economist. Published February 10. Available: http://www.economist.com/node/18114327?story_id=18114327. [Accessed February 10 2011].
- ECONOMIST. 2018a. *America v China: The battle for digital supremacy*. Economist. Published March 15. Available: <https://www.economist.com/news/leaders/21738883-americas-technological-hegemony-under-threat-china-battle-digital-supremacy>. [Accessed March 15 2018].
- ECONOMIST. 2018b. *Diligence disrupted: Law firms climb aboard the AI wagon*. Economist. Published July 12. Available: <https://www.economist.com/business/2018/07/14/law-firms-climb-aboard-the-ai-wagon> [Accessed July 12 2018].
- ECONOMIST. 2019a. *Digitisation is helping to deliver goods faster*. Economist. Published July 11. Available: <https://www.economist.com/special-report/2019/07/11/digitisation-is-helping-to-deliver-goods-faster>. [Accessed July 12 2019].
- ECONOMIST. 2019b. *Future of the workplace: Redesigning the corporate office*. Economist. Published September 26. Available: <https://www.economist.com/business/2019/09/26/redesigning-the-corporate-office>. [Accessed September 27 2019].
- ECONOMIST. 2019c. *Technology and society: Pessimism v progress*. Economist. Published December 18. Available: <https://www.economist.com/leaders/2019/12/18/pessimism-v-progress>. [Accessed December 19 2019].
- ECONOMIST. 2020a. *Great cities after the pandemic*. Economist. Published June 11. Available: <https://www.economist.com/leaders/2020/06/11/great-cities-after-the-pandemic>. [Accessed June 12 2020].
- ECONOMIST. 2020b. *The great reversal: Covid-19 is undoing years of progress in curbing global poverty*. Economist. Published May 23. Available: <https://www.economist.com/international/2020/05/23/covid-19-is-undoing-years-of-progress-in-curbing-global-poverty>. [Accessed May 31 2020].
- ECONOMIST. 2020c. *Pandemic-proofing the planet*. Economist. Published June 25. Available: <https://www.economist.com/science-and-technology/2020/06/25/pandemic-proofing-the-planet>. [Accessed June 26 2020].
- EDGE. 2019. *Skills Shortages in the UK Economy*. Edge Foundation. Published July. Available: https://www.edge.co.uk/sites/default/files/documents/skills_shortage_bulletin_5_final_-_web.pdf. [Accessed June 3 2020].

- EDINBURGH. 2020. *The Appleton Tower face shield factory*. University of Edinburgh. Published April 27. Available: <https://www.ed.ac.uk/informatics/news-events/stories/2020/the-appleton-tower-face-shield-factory>. [Accessed April 28 2020].
- ELLIOTT, L. 2020. *UK economy hit by sharpest fall in 41 years amid Covid-19 crisis*. Guardian (UK). Published June 30. Available: <https://www.theguardian.com/business/2020/jun/30/uk-economy-fall-covid-19-gdp-figures-coronavirus-pandemic>. [Accessed June 30 2020].
- ESPINOZA, J. 2020. *'Death of the office' exaggerated despite homeworking boom*. Financial Times (London). Published July 1. Available: <https://www.ft.com/content/1e86dc36-907b-11ea-bc44-dbf6756c871a>. [Accessed July 1 2020].
- FENTON, A. 2020. *Coronavirus: British Airways reportedly sacks 350 pilots*. Yahoo. Published June 28. Available: <https://uk.finance.yahoo.com/news/coronavirus-british-airways-sacks-350-pilots-160828713.html> [Accessed June 29 2020].
- GIBBENS, S. 2020. *Goodbye to open office spaces? How experts are rethinking the workplace*. National Geographic. Published April 30. Available: <https://www.msn.com/en-gb/money/career/goodbye-to-open-office-spaces-how-experts-are-rethinking-the-workplace/ar-BB13rOBv>. [Accessed May 1 2020].
- GILLETT, F. 2020. *Coronavirus: What's the future for the office?* British Broadcasting Corporation (BBC). Published May 26. Available: <https://www.bbc.co.uk/news/uk-52720007>. [Accessed May 26 2020].
- GRAETZ, G. 2020. *Labour demand in the past, present and future*. European Commission. Published February 4. Available: <https://op.europa.eu/en/publication-detail/-/publication/795efceb-47cc-11ea-b81b-01aa75ed71a1/language-en>. [Accessed February 6 2020].
- GREEN, A. E. 2012. *Skills for Competitiveness: Country Report for United Kingdom*. OECD. Published May 17. Available: http://www.oecd-ilibrary.org/industry-and-services/skills-for-competitiveness-country-report-for-united-kingdom_5k9bb1vc6skf-en. [Accessed September 3 2012].
- HANCOCK, A. & CUNDY, A. 2020. *Michelin starred meals delivered to customers in lockdown*. Financial Times (London). Published March 26. Available: <https://www.ft.com/content/61535042-6e86-11ea-89df-41bea055720b>. [Accessed March 27 2020].
- HANCOCK, A. & HODGSON, C. 2020. *Recipe box sales surge under lockdown*. Financial Times (London). Published May 8. Available: <https://www.ft.com/content/90b7e7a6-f22d-44f1-93da-eead80fc70c>. [Accessed May 10 2020].
- HARFORD, T. 2020a. *Robots will not be coming for our jobs just yet*. Financial Times (London). Published January 3. Available: <https://www.ft.com/content/ad0f30ac-2b1d-11ea-a126-99756bd8f45e>. [Accessed January 3 2020].
- HARFORD, T. 2020b. *Tim Harford: can the pandemic help us fix our technology problem?* Financial Times (London). Published June 11. Available: <https://www.ft.com/content/70cace2c-1bec-4c02-a23c-9d55884b21ac>. [Accessed June 11 2020].
- HEAPHY, E. 2020. *Coronavirus: Ryanair pilots agree 20% pay cut amid job loss warnings*. Yahoo. Published July 1. Available: <https://uk.finance.yahoo.com/news/coronavirus-ryanair-michael-oleary-warns-of-3500-job-losses-if-pay-cuts-cannot-be-agreed-082027907.html>. [Accessed July 2 2020].
- HODGE, K. 2020. *Hybrid working sets fresh challenge for collaboration tech*. Financial Times (London). Published July 1. Available: <https://www.ft.com/content/0f77fd34-aa65-11ea-abfc-5d8dc4dd86f9>. [Accessed July 3 2020].

- HOTTEN, R. 2020. *UK economy: 'We are battered, bruised, but wiser after lockdown'*. British Broadcasting Corporation (BBC). Published June 30. Available: <https://www.bbc.co.uk/news/business-53239961>. [Accessed July 1 2020].
- HULBERT, M. 2020. *Opinion: V, U, W or L — here's what really matters about the shape of the economy's recovery*. MarketWatch. Published June 20. Available: <https://www.marketwatch.com/story/v-shaped-u-shaped-or-l-shaped-why-the-look-of-the-economys-recovery-doesnt-really-matter-2020-06-16>. [Accessed June 22 2020].
- ILO. 2020. *ILO Monitor: COVID-19 and the world of work. 5th edition*. International Labour Organization. Published June 30. Available: https://www.ilo.org/global/topics/coronavirus/impacts-and-responses/WCMS_749399/lang--en/index.htm. [Accessed July 1 2020].
- INAGAKI, K. 2019. *Folding T-shirts? There's a Uniqlo robot for that*. Financial Times (London). Published December 24. Available: <https://www.ft.com/content/79434838-2142-11ea-b8a1-584213ee7b2b>. [Accessed December 24 2019].
- INDVIK, L. & ABBOUD, L. 2020. *Dressing up again? Fashion tries to recover from 'brutal' crisis*. Financial Times (London). Published June 19. Available: <https://www.ft.com/content/89e9de1c-0213-49b8-82ba-edca04e1e910>. [Accessed June 21 2020].
- KCL. 2020. *Life under lockdown: coronavirus in the UK*. Kings College London. Published April 9. Available: <https://www.kcl.ac.uk/news/life-under-lockdown-coronavirus-in-the-uk>. [Accessed April 29 2020].
- KOBIE, N. 2018. *What is the gig economy and why is it so controversial?* Wired.com. Published September 14. Available: <https://www.wired.co.uk/article/what-is-the-gig-economy-meaning-definition-why-is-it-called-gig-economy>. [Accessed July 6 2020].
- KOETSIER, J. 2020. *Amazon Hired 100,000 People Last Month. Now It's Hiring Another 75,000*. Forbes.com. Published April 13. Available: <https://www.forbes.com/sites/johnkoetsier/2020/04/13/amazon-hired-100000-people-last-month-now-its-hiring-another-75000/#1e97682c9db4>. [Accessed April 14 2020].
- KOLLEWE, J. 2020. *Why the home-working boom could tumble London's skyscrapers*. Guardian (UK). Published June 27. Available: <https://www.theguardian.com/business/2020/jun/27/why-the-home-working-boom-could-tumble-londons-skyscrapers>. [Accessed June 27 2020].
- LAIDI, A. 2020. *Covid-19 forces France to look at relocating its pharmaceutical industry*. France24.com. Published May 14. Available: <https://www.france24.com/en/20200514-covid-19-forces-france-to-look-at-relocating-its-pharmaceutical-industry>. [Accessed May 15 2020].
- LI, Y. 2020. *Nearly half the U.S. population is without a job, showing how far the labor recovery has to go*. CNBC. Published June 30. Available: <https://www.cnbc.com/2020/06/29/nearly-half-the-us-population-is-without-a-job-showing-how-far-the-labor-recovery-has-to-go.html>. [Accessed June 30 2020].
- LLOYD, P. E. 2019. *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Peter Lloyd Associates. Published December. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed February 3 2020].
- LLOYD, P. E. 2020. *Facing the Digital Transformation: Emerging Labour and Skills Shortages*. Peter Lloyd Associates. Published February. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed March 3 2020].
- LONERGAN, E. & BLYTH, M. 2020. *Angrynomics*. Newcastle upon Tyne (UK): Agenda Publishing.

- LUND, S., MANYIKA, J., HILTON SEGEL, L., et al. 2019. *The future of work in America: People and places, today and tomorrow*. McKinsey & Company. Published July. Available: <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-in-america-people-and-places-today-and-tomorrow>. [Accessed September 9 2019].
- LUTZ, K. 2020. *Pre-COVID, The Global FoodBanking Network's Community of Food Banks Served 16.9 Million People Facing Hunger in 2019*. Yahoo. Published June 30. Available: <https://finance.yahoo.com/news/pre-covid-global-foodbanking-network-212726365.html>. [Accessed July 1 2020].
- MASTERS, B. 2020. *Homeworking makes spilling corporate secrets all the easier*. Financial Times (London). Published June 10. Available: <https://www.ft.com/content/9fdd9de9-00ea-4fd4-a558-6b43e8b774a3>. [Accessed June 11 2020].
- MEYER, D. 2020. *'Personnel overhang': All the job cuts each airline has announced so far*. Fortune Magazine. Published June 11. Available: <https://fortune.com/2020/06/11/airline-layoffs-job-cuts-coronavirus-covid-19-lufthansa-british-airways-emirates-american-airlines-sas-norwegian-easyjet-united-virgin-ryanair/>. [Accessed June 11 2020].
- MOORE, R. 2018. *After the retail apocalypse, what next for the high street?* Guardian (UK). Published December 1. Available: <https://www.theguardian.com/society/2018/dec/01/everything-must-go-what-next-for-the-high-street-new-retail-empty-shops>. [Accessed February 4 2020].
- MURPHY, H. 2020. *Companies wrestle with growing cyber security threat: their own employees*. Financial Times (London). Published May 12. Available: <https://www.ft.com/content/cae7905e-ced7-4562-b093-1ab58a557ff4>. [Accessed May 17 2020].
- O'CONNOR, S. 2020. *Leicester's dark factories show up a diseased system*. Financial Times (London). Published July 3. Available: <https://www.ft.com/content/0b26ee5d-4f4f-4d57-a700-ef49038de18c>. [Accessed July 3 2020].
- OBR. 2020. *Coronavirus lockdown to deliver large (but hopefully temporary) shock to the economy and public finances*. Office for Budget Responsibility (UK). Published April 14. Available: <https://obr.uk/coronavirus-lockdown-to-deliver-large-but-hopefully-temporary-shock-to-the-economy-and-public-finances/>. [Accessed April 15 2020].
- OECD. 2019. *Skills for 2030*. OECD. Available: https://www.oecd.org/education/2030-project/teaching-and-learning/learning/skills/Skills_for_2030_concept_note.pdf. [Accessed January 5 2020].
- OECD. 2020. *Building Back Better: A Sustainable, Resilient Recovery after COVID-19*. OECD. Published June 5. Available: <http://www.oecd.org/coronavirus/policy-responses/building-back-better-a-sustainable-resilient-recovery-after-covid-19-52b869f5/>. [Accessed June 16 2020].
- ONS. 2019. *Quarterly economic commentary: April to June 2019*. Office for National Statistics (UK). Published September 30. Available: <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/articles/quarterlyeconomiccommentary/apriltojune2019>. [Accessed October 1 2019].
- ONS. 2020a. *Coronavirus (COVID-19) related deaths by occupation, England and Wales: deaths registered between 9 March and 25 May 2020*. Office for National Statistics (UK). Published June 26. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/coronaviruscovid19relateddeathsbyoccupationenglandandwales/deathsregisteredbetween9marchand25may2020>. [Accessed June 26 2020].

- ONS. 2020b. *Coronavirus and the impact on output in the UK economy: April 2020*. Office for National Statistics (UK). Published June 12. Available: <https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/coronavirusandtheimpactonoutputintheukeconomy/april2020> [Accessed June 13 2020].
- ONS. 2020c. *Coronavirus and the social impacts on Great Britain: 3 July 2020*. Office for National Statistics (UK). Published July 3. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandthesocialimpactsongreatbritain/3july2020>. [Accessed July 3 2020].
- ONS. 2020d. *Labour market overview, UK: June 2020*. Office for National Statistics (UK). Published June 16. Available: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/june2020#unemployment>. [Accessed June 18 2020].
- ONS. 2020e. *Which occupations have the highest potential exposure to the coronavirus (COVID-19)?* Office for National Statistics (UK). Published May 11. Available: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/whichoccupationshavethehighestpotentialexposuretothecoronaviruscovid19/2020-05-11>. [Accessed May 11 2020].
- PARTINGTON, R. 2020. *UK needs 'biggest-ever peacetime job creation plan' to stop mass unemployment*. Guardian (UK). Published June 29. Available: <https://www.theguardian.com/business/2020/jun/29/uk-needs-biggest-ever-peacetime-job-creation-plan-to-stop-mass-unemployment>. [Accessed June 29 2020].
- PHILIP, S. V. & MULIER, T. 2020. *Swissport to Cut 4,500 U.K. Jobs on Air-Travel Slump*. Bloomberg. Published June 24. Available: <https://www.bloomberg.com/news/articles/2020-06-24/unions-call-for-aid-to-avoid-4-175-swissport-job-cuts-in-u-k>. [Accessed June 25 2020].
- PICKFORD, J. 2020. *UK creative industries risk 'cultural catastrophe' without support*. Financial Times (London). Published June 17. Available: <https://www.ft.com/content/aa93b17b-55ea-4273-aff0-80b6d92c2c8d>. [Accessed June 17 2020].
- PIKETTY, T. 2020. *Capital and ideology*. Cambridge, MA: Harvard University Press.
- POOLER, M. 2019. *3D printing offers hope of building human organs from scratch*. Financial Times (London). Published December 9. Available: <https://www.ft.com/content/eabb0e00-9755-11e9-98b9-e38c177b152f>. [Accessed December 9 2019].
- PROCTOR, K. 2020. *Just 6% of UK public 'want a return to pre-pandemic economy'*. Guardian (UK). Published June 28. Available: <https://www.theguardian.com/world/2020/jun/28/just-6-of-uk-public-want-a-return-to-pre-pandemic-economy>. [Accessed June 30 2020].
- REUTERS. 2020. *U, V, W-shaped recovery? Doesn't matter: strategist*. Reuters. Published June 30. Available: <https://uk.reuters.com/video/watch/idRCV008EU2>. [Accessed July 1 2020].
- RICHARDSON, H. 2020. *Coronavirus: £1bn catch-up tutoring fund for England's pupils*. British Broadcasting Corporation (BBC). Published June 19. Available: <https://www.bbc.co.uk/news/education-53100881>. [Accessed June 19 2020].
- RODRÍGUEZ-POSE, A. 2018. *The revenge of the places that don't matter (and what to do about it)*. Cambridge Journal of Regions, Economy and Society, 11, 1, 189-209. Available: <https://doi.org/10.1093/cjres/rsx024>.

- ROSENBAUM, E. 2019. *1 in 5 corporations say China has stolen their IP within the last year: CNBC CFO survey*. CNBC. Published March 1. Available: <https://www.cnbc.com/2019/02/28/1-in-5-companies-say-china-stole-their-ip-within-the-last-year-cnbc.html>. [Accessed June 24 2020].
- SANDBU, M. 2020. *The everyone economy: how to make capitalism work for all*. Financial Times (London). Published July 3. Available: <https://www.ft.com/content/a22d4215-0619-4ad2-9054-3a0765f64620>. [Accessed July 3 2020].
- SCHLEICHER, A. 2017. *Creativity, Education and Culture Conference*. OECD. Published October 6. Available: https://www.youtube.com/watch?v=VRkf6pDEyA4&index=1&list=PL1zMD_kTXdixNKUnVq3Dk4Z_XgUuZHWItP. [Accessed May 8 2018].
- SEN, A. 2020. *A better society can emerge from the lockdowns*. Financial Times (London). Published April 15. Available: <https://www.ft.com/content/5b41ffc2-7e5e-11ea-b0fb-13524ae1056b>. [Accessed April 15 2020].
- SERVOZ, M. 2019. *The Future of Work? The Work of the Future! On how artificial intelligence, robotics and automation are transforming jobs and the economy in Europe*. European Commission. Published May 3. Available: <https://ec.europa.eu/digital-single-market/en/news/future-work-work-futurehttps://ec.europa.eu/digital-single-market/en/news/future-work-work-future>. [Accessed January 5 2020].
- SINGH, S. 2020. *Covid-19 pandemic has exposed the structural deficit in the NHS*. Medium.com. Published June 19. Available: <https://medium.com/bridges-to-the-future/covid-19-pandemic-has-exposed-the-structural-deficit-in-the-nhs-5b19ad0764eb>. [Accessed June 23 2020].
- SKY. 2020. *Coronavirus: US buys up almost entire world supply of COVID-19 drug Remdesivir*. Sky.com. Published July 1. Available: <https://news.sky.com/story/coronavirus-us-buys-up-almost-entire-world-supply-of-covid-19-drug-remdesivir-12018430>. [Accessed July 1 2020].
- SOLOMON, E. & COOKSON, C. 2020. *German slaughterhouses in spotlight after virus outbreak*. Financial Times (London). Published June 26. Available: <https://www.ft.com/content/5284d0d3-8c27-4e63-8790-7df0f8760581>. [Accessed June 26 2020].
- STANDING, G. 2020. *Meet the precariat, the new global class fuelling the rise of populism*. World Economic Forum. Published November 9. Available: <https://www.weforum.org/agenda/2016/11/precariat-global-class-rise-of-populism/>. [Accessed June 3 2020].
- STATON, B. & EVANS, J. 2020. *Three million go hungry in UK because of lockdown*. Financial Times (London). Published April 11. Available: <https://www.ft.com/content/e5061be6-2978-4c0b-aa68-f372a2526826>. [Accessed April 11 2020].
- STIRLING, A. & ARNOLD, S. 2020. *A Minimum Income Guarantee for the UK*. New Economics Foundation. Published March. Available: <https://neweconomics.org/uploads/files/MIG-new.pdf>. [Accessed March 29 2020].
- STUBLEY, P. 2020. *UK economy on course for 'V-shaped' recovery from pandemic, Bank of England chief economist says*. Independent (London). Published July 1. Available: <https://www.independent.co.uk/news/business/news/coronavirus-recovery-v-shape-recession-uk-gdp-bank-england-andy-haldane-a9594741.html> [Accessed July 2 2020].
- TAPSFIELD, J., SAUNT, R. & WILCOCK, D. 2020. *EVERY Briton could be paid a universal basic salary by the government regardless of means to help the country through the coronavirus cash crisis*. Daily Mail (London). Published March 19. Available: <https://www.dailymail.co.uk/news/article->

[8128807/EVERY-Briton-paid-universal-basic-salary-regardless-means-coronavirus-cash-crisis.html](https://www.bbc.com/news/health-52340651). [Accessed March 20 2020].

THOMAS, Z. 2020. *Coronavirus: Will Covid-19 speed up the use of robots to replace human workers?* British Broadcasting Corporation (BBC). Published April 19. Available: <https://www.bbc.co.uk/news/technology-52340651>. [Accessed April 19 2020].

THORNHILL, J. 2020. *Three game-changing ideas for our post-pandemic world*. Financial Times (London). Published May 29. Available: <https://www.ft.com/content/f35db8c6-a02f-11ea-b65d-489c67b0d85d>. [Accessed May 30 2020].

VANDETTE, K. 2020. *What are the environmental impacts of global supply chains?* Earth.com. Published September 14. Available: <https://www.earth.com/news/environmental-impact-supply-chains/>. [Accessed June 24 2020].

VELLA, H. 2020. *Disrupting travel plans for the near future*. The Raconteur. Published July 2. Available: <https://www.raconteur.net/business-innovation/uk-transport-patterns>. [Accessed July 2 2020].

WEF. 2018. *Towards a Reskilling Revolution: A Future of Jobs for All*. World Economic Forum. Published January. Available: http://www3.weforum.org/docs/WEF_FOW_Reskilling_Revolution.pdf. [Accessed May 9 2018].

WILSON, T. 2020. *Record unemployment looms in the UK. Here's what the government must do*. Guardian (UK). Published June 16. Available: <https://www.theguardian.com/commentisfree/2020/jun/16/record-unemployment-uk-government-ons-figures-labour-market>. [Accessed June 16 2020].

WOLF, M. 2020. *Democracy will fail if we don't think as citizens*. Financial Times (London). Published July 6. Available: <https://www.ft.com/content/36abf9a6-b838-4ca2-ba35-2836bd0b62e2>. [Accessed July 6 2020].

WORLD. 2020. *World Bank Predicts Sharpest Decline of Remittances in Recent History*. World Bank. Published April 22. Available: <https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history>. [Accessed April 23 2020].

6.0 Learning the Lessons for Covid-19 - Opening the Door to Local Intervention

This paper was released on 6 August 2020.

The Pandemic Summary Timeline – 8 July to 6 August 2020

9 July – Sport and cultural activities can resume on 11 July subject to distancing etc. restrictions.

12 July – Michael Gove declares that the wearing of face coverings should not be compulsory.

14 July – The government announce that face coverings will be compulsory from 24 July in shops and supermarkets.

17 July – The Prime Minister plans for a "significant return to normality" by Christmas. People can now use public transport for non-essential journeys. A review is requested about how deaths are recorded as being due to Covid-19.

19 July – The England contact tracing system is not working effectively, with over 50% of people who had close contact with a positive tested person had not been contacted.

23 July – A network of walk-in test centres will be established by October.

28 July – Stricter restrictions are introduced in Oldham as cases spike. The same occurs in Preston on 7 August.

31 July – As cases increase, the Prime Minister has to suspend the easing of restrictions due on August 1.

1 August – Hot summer weather has led to severe crowding problems in holiday locations.

2 August – Manchester has a serious increase in cases and declares a 'major incident' in the health service.

Source: Derived from Wikipedia⁸⁰

6.1 Looking back at Paper 6

By the time Paper 6 was written in the first week of August, the most prominent Covid-19 news stories were about crowded beaches in a country where the "staycation" had become the norm under the circumstances of the pandemic. Anxiety about the future had been actively reduced by the statement from the Prime Minister on 17th of July that there would be "a significant return to normality by Christmas". We now know

⁸⁰ https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

to our cost just how overblown that claim turned out to be. Throughout early July, the broad graphs for the progression of the pandemic continued to look promising - but towards the end of the month and into August we were beginning to hear more about localised hotspots in the north. The government finally began to show its concern when the Prime Minister declared major reduction in the proposals to ease restrictions over the coming weeks.

Paper 6 had as its main focus on the twin issues of data and governance. It took the opportunity to look back and see how information about the state of the pandemic had been gathered, processed and disseminated. What emerged was a story of failure on many levels – spanning the range through what data was sought, how it was processed and how it was displayed and disseminated. The defining feature was the government's chosen system for handling the pandemic. This cut across attempts to recover a faithful, grounded and realistic understanding of what was going on. We took time to explore this in detail and, as we enter a third wave, what was revealed in August 2020 still has lessons for how to proceed – though on the data front, at least, we are in far better shape.

- Toward the end of July, it had not been understood that in many places – particularly in the north - **contagion had not significantly slowed down**. Once this came to light as better data emerged,, the prospects for a second wave became much higher than the government had been anticipating only weeks before.
- On August 2nd, the Greater Manchester Combined Authority was moved to declare a “major incident” as local spikes bubbled up. This marked a new and significant phase for the debate about **policy governance**.
- Local case levels, seen through data for those regions that had mayors, provoked calls for variable support from the Chancellor. Covid-19 had become a significant player in the **north- south debate**. (*this sudden rise in voice from the north was overtaken later when the new variant enveloped the south but the debate is simply dormant*)
- Voices were raised yet again particularly amongst the Directors of Public Health for a more localised approach to coping with the spread of infection. The opportunity was here, with the data to hand, to **look again at the strategy** for dealing with the virus – and track and trace in particular (*Only in later in the year did the government fully acknowledge the importance of local supplementation to its test and trace scheme*).
- The channels of information on cases had become awkwardly segmented by the **binary system of management** - on the one hand, the public system with hospital derived data; on the other, privatised system operating through “test and trace”. A complex system of “pillars” had to be brought into play to recognise this – with additional complications for understanding the progression of the pandemic (*It took months for the private sector “community” tracing system to get up to speed – with some spectacular examples of poor data management*) .
- The original **centralising, privatising philosophy** that was put in place by the government seemed impervious to requests for change even in the face of all the new evidence coming forward. Decisions made at the very beginning locked government into a path that had profound implications - even for the acquisition of data to understand what was going on.

Paper 6 ended (as the earlier papers had done) with a plea for the pathway of policy governance be redirected on the basis of the better data now available. It promoted the case that the local was a critical part of any program that aimed to tackle the causalities of contagion at their root. Even now at the end of 2020, we find the government seemingly unable to divert from its fixated dependence on centralisation, the messaging approach, and a closed group in control. Meanwhile, the confidence of the population in the ability of the government to manage the crisis has continued steadily to fall away. In early August,

messaging was having less impact and the virus was beginning to widen its spread across the community on the way to the second wave.

PAPER SIX ON THE 'LEARNING THE LESSONS' FOLLOWS

6.2 Introduction

This paper started out as an academic critique of the data that were available to assess the impact of Covid-19 at local levels. We had been asking ourselves a number of questions about this because - even as researchers in the field - we were struggling with how to assess our own risks of catching the virus where we lived. Risks identified at the macro-level seemed to be the focus for central government policy. On that basis, we were all asked to: restrict our mobility, observe social distancing, protect those most at risk of infection, wear masks, assure strict cleaning practices in workplaces, pubs, restaurants and so on. Like most people we complied. However, there was a fundamental question that we struggled to answer:

- What is the Covid-19 risk relating to me and my immediate community?

This question is important, because Covid-19 has a detailed geographical incidence. It operates between people in their daily lives in the places they find themselves. Some places will have large numbers of cases, some few. People sharing their experiences from place to place may say they have heard of no one suffering from it, while others tell of widespread cases near them. Local variability was in evidence from the very beginning from this and from news reports. The questions were clear. What is the shape of this? Why is it rife in some areas and not in others? How close is it to me? These sorts of questions were in people's minds but we did not know enough about what was going on even in our own neighbourhood or community to know just how anxious we should be.

A problem was that the data available to the public right up to the middle of July was not good enough to make a reasonable judgment. Worse still for us as geographers, we were aware that the ways in which statistics are processed and mapped can very much influence the messages received. We saw a lot of maps but they were at the wrong scale to help, and we were also worried about the underlying data. In the face of a policy driven by simple messages from ministerial briefings, these uncertainties in what people were seeing around them could influence how seriously they thought about the risk they were facing in their daily lives. We had graphs and maps about the national, regional and strategic local authority incidence of infection, but what should we read off from them?

The first part of the paper that follows takes us over this terrain. We look first at the numbers; where data on positive cases of Covid-19 came from; how the statistics of 'cases' and 'deaths' were developed; how 'deaths' were measured in different ways; and how much the publicised schemes for tracking and tracing infections fits into all this. We look at maps to see how the use of regions and local authority districts for the scale of presentation could produce often conflicting interpretations of the statistics and kept us in the dark on what was going on at community levels. This led to a second question:

- What should we change in the way we approach the management of the pandemic after mid-July when we could see in greater detail, for the first time, how the virus spreads across particular kinds of localities?

Around the middle of July there was a fundamental change in the way we could see the Covid-19 virus in action. The limitations of perspectives that so influenced the way policy was applied dropped away. Better data at granular level finally appeared. People could now be more assured (though still with reservations)

about the provenance of the data, and we were presented with information much closer to home on the process of contagion. It was possible now to clearly see hotspots and clusters and the vulnerability of some groups in the population over others.

The last part of the paper moves away from statistics and geographies, to a focus that acknowledges the availability of localised data requiring that we should empower local actors in supporting the post-lockdown phases. This brings in the issue of governance. We look at the role of Directors of Public Health, and how they need to have access to very granular local detail. There are now data licencing arrangements between them and Public Health England which started to give them the local intelligence, but we also bring into play the lack of robust and reliable test and track processes.

All of us may well have to accept that the virus will be here some time. However, while the immediate priority is to deal with the evolving crisis by dramatically stepping up testing, it is important to move from reactive mode to a more robust strategy that will see central government as the orchestrator of an multi-level, multi- partnership approach, co-designing more sophisticated interventions at many levels to add requisite variety to the policy for dealing with embedded Covid-19.

6.3 The Early Stages

6.3.1 Struggling to cope with a brutal reality

One of the tasks of the UK government is to be prepared at the national level for a major health challenge. To be effective it should learn from past experiences (such as SARS and MERS), and then plan ahead better. In the case of the Covid-19 pandemic, this has not been the case in terms either of preparedness, or prior learning (Syal, 2020): “*Boris Johnson has lamented the “brutal reality” that the UK did not learn the lessons from past virus outbreaks in developing sufficient capacity for testing and tracing*” (Gregory, 2020).

In the first weeks of the UK experience of the pandemic, three signal failures had serious consequences; i) a failure to react quickly enough; ii) a scramble to meet shortages in PPE (Personal Protective Equipment); and; iii) an early decision to prioritise testing for the NHS while missing out the care homes (McGuinness, 2020), which were obliged to take in residents discharged from hospital without prior testing (PA, 2020). The subsequent impact of these failures on the speed of contagion, the health of front-line NHS staff and of deaths in the care homes has been well documented (ONS, 2020). From the beginning of the pandemic in the UK, the government was behind the curve.

6.3.2 Looking on “the science” to set the pathway

A government needs to show itself as well enough informed to confront the immediate challenge, and to win the trust of the people. To achieve this, politicians need the assistance available from the objective and independent advice of experts. SAGE⁸¹ - the Scientific Advisory Group for Emergencies (note the term ‘Advisory⁸²’) – was called upon to provide scientific advice in the case of Covid-19. Citizens were assured repeatedly that government was “*following the science*”. However, it needs to be understood that, as Sir Richard Mottram observed:

“there is no such thing as ‘the science’. Scientific advice rightly is embedded within the government’s crisis management machinery in support of decisions that are ultimately a matter for

⁸¹ <https://www.gov.uk/government/organisations/scientific-advisory-group-for-emergencies>

⁸² “SAGE is responsible for ensuring that timely and coordinated scientific advice is made available to decision makers to support UK cross-government decisions in the Cabinet Office Briefing Room (COBR). The advice provided by SAGE does not represent official government policy”.

Ministers ... An issue is whether Ministers understand the inherent limitations in scientific advice.
(Mottram, 2020)

There was never likely to be a simple definitive recommendation for action from SAGE. At the stages before a pandemic, or in the early stages of it, scientists needed to work more on statistical models where a range of assumptions were made. Different models were developed by different research groups, each with their own assumptions, leading to varying scenarios which the politicians had to understand and evaluate for policy purposes. For epidemiological models, the basic inputs tend to be similar. The modellers need to know who and how many people are *infected* at a given time, what the risk is that they will *transmit* it to others, who is *susceptible*, and who might be *immune*⁸³.

A great deal has been learned from past epidemics about how fast a virus can spread in certain situations and this can help with projections of future pathways. This is what science offered in the early days while the system for capturing real information about what was happening was still under development. Over time, as more information comes in, a better sense of the reality of the pandemic can be added to models and conveyed to those developing policy interventions.

The job of the politicians is to take scientific advice, set it within a clear policy framework, be transparent about the process of how this is done, and build trust with the people by providing clear explanations of what is happening. Ideally, the aim would be to promote confidence by showing a government on top of the challenge. All governments found it hard to cope with Covid-19, and they had to balance the 'best' advice from their scientists with what would 'work best' under the system of governance in place. They had to persuade the people to take on board the extreme measures needed to suppress contagion. To be fair, this was an unprecedented challenge and even the best organised governments struggled to cope with it. Some managed better than others. While a great deal can be learned by looking at how other countries coped, *context is critical*. The governance and compliance variables will never be the same.

6.3.3 Getting the people on board: Exhortation backed up by rules

Confronting pandemics needs the trust, mobilisation, and support of all the people. The means for bringing the people on board ranges across a scale from more coercion at one end to more trust and persuasion at the other. Covid-19 has seen this play out globally with some nations exercising extensive control and surveillance and others depending on having the population comply voluntarily with central messages on the right thing to do. The first move by the UK government was to persuade its citizens to comply voluntarily. Lockdown was the chosen first order policy response and the constantly repeated message was "*stay home; save the NHS; save lives*" – an appeal to the good sense and solidarity of the people. From the science, the simply stated target was to 'flatten the curve' of increasing infections if the health services were not to be overwhelmed. This stark message produced an immediate response.

The main UK approach was, then to encourage compliance through inducing sound behaviours. The necessary legislation⁸⁴ to back this up was drafted at an unprecedented speed, with no time for the usual extensive Parliamentary scrutiny (Nice, 2020, Yorke and Penna, 2020). However, at an early stage, political ideology came into play. It has been suggested that a feature of this was Boris Johnson's own "... *strong sense that the government should not tell people what to do unless absolutely necessary*" (Smith, 2020).

⁸³ The Kermack–McKendrick epidemic model (1927) and the Reed–Frost epidemic model (1928) both describe the relationship between susceptible, infected and immune individuals in a population as crucial. See <https://royalsocietypublishing.org/doi/10.1098/rspa.1927.0118> and <https://www.osc.edu/education/si/projects/epidemic>

⁸⁴ <https://www.legislation.gov.uk/uksi/2020/129/contents/made> and <https://commonslibrary.parliament.uk/research-briefings/cbp-8875/>

The Prime Minister resisted imposing rules early on. However, after his near-death experience with the virus, things changed: “*Boris Johnson has admitted that he has ditched his “libertarian” position on whether or not the state should help people... (in this later case talking about obesity) ... after his own brush with coronavirus*” (Honeycombe-Foster, 2020). The lack of clarity with rules (and who, and how, the rules should be ‘policed’) and the Dominic Cummings affair (the subject of one of our previous papers in this series) led William Davies to conclude that the lockdown and other rules:

“are unlike anything we’ve experienced before: a mixture of law and algorithm, informal etiquette and formal code ... But if people give up, and if the police are unable to constrain them, the question will arise of why people ever obey rules in the first place.” (Davies, 2020)

To carry the people along, we also add in the ways the mass media in a free society (the television and news media, but also social media - acknowledging the latter’s ability to deflect compliance through the often unfettered dissemination of fake news and views) can re-communicate the Government message and position it through lenses focused on their own particular viewers and readerships. The ambition to give a clear message was entirely laudable. The practicalities controlling it in an age of modern media were much more challenging. Once again, we can see significant international variation in approach between those governments that manage their national media and those committed to free speech.

6.3.4 Confusion further confounded

In spite of previous warnings about pandemics (Henig, 2020), the government (and previous governments are also guilty) had not put in place a provision to contain any pandemic - let alone something like Covid-19. Critically, no immediately useable system existed for capturing data on emerging cases and on the progression of the contagion process. No prior thought was given about what sort of intelligence would be needed to know what was going on. This saw the leadership operating partially blind for far too long when faced with a fast-moving viral enemy.

Political action was coloured by the ideological positioning of a newly elected government and by their expectations of how citizens would ‘behave’ when faced with such a draconian interference in their lives. The first order policy response consisted chiefly of strong, clear messages (but still capable of variable interpretations), communicated through Ministerial briefings and taken up by television, by newspapers and by social media. From the outset it was all a bit of a mess. The Prime Minister brought himself to acknowledge this on 24th July when he “*apologised for not apologising*” (Walker, 2020) for what had happened at the beginning.

One of the most obvious priorities as the pandemic hit was the need to *see and understand what was actually going on*. There needed to be appropriate and timely data, organised at the appropriate geographical levels feeding into governance structures mandated and resourced to intervene. Sadly, this turned out to be anything but the case in the early months of the Covid-19 event. In the first part of the paper we explore some of the realities of this initial period. We turn, in the second part, to see what lessons might be learned as we face the possibility of future waves of the pandemic.

6.4 Capturing the Basic Data

6.4.1 Finding Covid-19 cases

Let us start with where the basic numbers came from. Confronting Covid-19 two key questions needed accurate and hopefully rapid answers. Who has the virus? Where is this most active? To find this out, a test was needed. Fortunately, the science made this relatively easy quite early on. The non-science issue

is, however; “how do we organise to get enough tests done for a mass of people in a short time, countrywide?” and while we are doing this; “how do we collect, store and report the data that arises?” This is both for organising medical intervention for those testing positive and for the collection of vital intelligence.

At the beginning of the pandemic, we were operating largely in the dark as far as data was concerned. There were some serious implications as a result of this⁸⁵. The first resort for testing was the hospital-based system of the NHS and the testing centres associated with it. This would capture information about the most acute cases on admission and on key NHS staff (the care homes were outside this loop). In March, a move was made to set up drive-through testing centres and “Lighthouse Labs⁸⁶”. These were operated both privately and publicly. The key aim was to increase the number of diagnostic swabs processed.

Critically, however, no attention was given to the need to see the importance of the testing system for collecting data on the outbreak. It took months for this fundamental error to be rectified (Boseley, 2020). The primary agency of the central government for dealing with infections of this order and marshalling the data was Public Health England⁸⁷, with devolved responsibilities to Public Health Scotland⁸⁸, Public Health Wales⁸⁹, and Northern Ireland⁹⁰.

With a diagnostic test available, government and policy makers needed to be in a position to answer five straightforward-looking questions if they were to make sound decisions about public health during Covid-19. These needed to produce clear; transparent and trustworthy information. This turned out to be challenging in practice – especially at speed (please bear with us, this is going to become rather complicated). First, the questions:

1. How many people have been infected by Covid-19?
2. Where are they located?
3. What is their risk of dying from the virus?
4. How do we warn people who have been in contact with those who are infected?
5. How many have actually died of the virus?
6. How do we report the statistics of Covid-19 deaths and contagion risk?

Two different requirements are embedded in this. One is simply the need to know what is going on – a data issue. The other is how to provide the right level of infection control to stop people becoming infected – a medical (public health) issue. The history of the early months is that these became tangled up, with a dash for track and trace to control infection over-riding the parallel need to produce good data.

6.4.2 Testing for Covid-19: The four pillars

Early steps were taken to add a set of privately and publicly operated, testing centres and labs alongside access to the NHS Public Health testing facilities already under way. These were installed under the auspices of the accounting and consultancy company Deloitte, Serco and *Site1*, assisted by the military with drive-through capability. The cost was some £48 million, with 27,000 testers, many of whom by early July

⁸⁵ The most serious, of course, was the failure, at a critical stage, to see what was going on in the care homes - they fell through the data capture net.

⁸⁶ <https://www.lighthouselabs.org.uk/>

⁸⁷ <https://www.gov.uk/government/organisations/public-health-england>

⁸⁸ <https://publichealthscotland.scot/>

⁸⁹ <https://phw.nhs.wales/>

⁹⁰ <https://www.publichealth.hscni.net/>

were doing little actual tracking and tracing (Lovett, 2020). That produced a complex regime of testing activities operated by different agents. Later this was regularised under the heading of a series of “Pillars⁹¹” as shown below:

The of “pillars” of testing and virology research are:

- *Pillar 1: Swab testing in Public Health England (PHE) labs and NHS hospitals for those with a clinical need, and health and care workers*
- *Pillar 2: Swab testing for the wider population, as set out in government guidance⁹²*
- *Pillar 3: Serology testing to show if people have antibodies from having had Covid-19*
- *Pillar 4: Blood and swab testing for national surveillance supported by PHE, the Office for National Statistics (ONS), and research, academic, and scientific partners to learn more about the prevalence and spread of the virus and for other testing research purposes, such as the accuracy and ease of use of home testing*

While Pillars One and Two are needed to find out who has the virus and where, Pillars Three and Four are largely to address to the virologists most basic key question; “know your virus” in the face of the completely unknown that is Covid-19⁹³. The difficult question of contagion risk runs through them all.

6.4.3 Recording deaths from Covid-19

Turning to the question of how many deaths there are as the result of Covid-19, once again this looks to be simple; but it is not. A key issue is that a table of numbers of deaths has behind it an official definition of someone who died as the result of Covid-19. Public Health England (in charge of data) had defined this as “*all those that have died who had a positive Covid-19 test at any point*”, (this is different from Scotland, Wales, and Northern Ireland, that to be only include “*those who die within 28 days of a positive test*” (BBC, 2020b)).

What, for example, should be recorded if patients who had Covid-19, recovered, and later died: of Covid-19, of the secondary impact of Covid-19 (organ damage), or of something completely separate from Covid-19 (such as an aneurism)? On Wednesday July 15 (when we started to write this note), the Covid-19 *official statistics*⁹⁴ from the www.gov.uk site stated that the “*Total number of deaths of people who have had a positive test result for Covid-19 reported up to Thursday, 16 July 2020*” was 45,119. In relation to this, the government website made the following statement on deaths data:

“The data do not include deaths of people who had Covid-19 but had not been tested or people who had been tested negative and subsequently caught the virus and died. Deaths of people who have tested positively for Covid-19 could in some cases be due to a different cause”.⁹⁵

This acknowledges the problem of defining a Covid-19 death, but it also notes that there are two important and potentially large sources of deaths from the virus that have not been in the data from the beginning. It comes as no surprise that the data about all deaths data had to be recalled and reviewed (BBC, 2020b).

⁹¹ <https://www.gov.uk/government/publications/coronavirus-covid-19-testing-data-methodology/covid-19-testing-data-methodology-note>

⁹² Even now (25th July) Pillar Two test data are not available at local or regional level

⁹³ <https://www.gov.uk/government/publications/coronavirus-covid-19-testing-data-methodology/covid-19-testing-data-methodology-note>

⁹⁴ <https://coronavirus-staging.data.gov.uk/>

⁹⁵ <https://coronavirus-staging.data.gov.uk/deaths>

6.4.4 Contacts and tracing: Controlling contagion

For infection control, health authorities need to know with whom the infected person has been in contact - both before exhibiting symptoms and after they appeared. The time-honoured process has been to ask (identified infected people) about contacts; to start with the home and family; friendship and work contacts, cascading the tracking and tracing outwards from there. This was traditionally done by people trained in the process, the public health professionals, who were generally familiar with the local context.

However, in an age of digital technology, there was a quick move by the UK government to downplay this personalised and local contact approach for England in favour of an IT-focused⁹⁶ 'track and trace' mechanism using mobile phones. Businesses in the digital communications field were, unsurprisingly, all too willing to help governments with this in a crisis. At its simplest, while not everyone has a smartphone, their usage is extensive, and in terms of a technology they can be used to provide information on where individuals have been, and who may have been 'near'⁹⁷ to them. Established methods for doing this exist. The global telecoms giants (Apple iPhone, and Google Android) are the operating system handlers of most smartphones, and their location tracking system can keep a highly detailed record of where we are, while their Bluetooth capability helps to identify which other phones may be near us⁹⁸.

Despite being mortal competitors, both Google and Apple agreed to work together to develop a tracing App at a speed appropriate to the demands of the moment. The European Union also noted that an App would need to work across the open borders of the EU, and that working together was important (Commission, 2020). The UK, having 'taken back' control of its borders with Brexit, was having none of this.

The UK Government decided to build its own "world beating" App using the same principles. On the 12th of April, the UK Health Secretary Matt Hancock announced a coronavirus track-and-trace app. On the 20th of May, Prime Minister Boris Johnson promised that the "world beating" app would be released within days⁹⁹. On June 18th, the government confirmed that the app had been abandoned (Hackett, 2020).

Regardless of the technical problems involved, an immediate issue with the mobile phone approach was – of course - *personal privacy*. The UK Government did not, however, factor this in. Staggeringly; "*The Department of Health has conceded that the initiative to trace contacts of people infected with Covid-19 was launched without carrying out an assessment of its impact on privacy*" (Cellan-Jones, 2020a). It is hardly surprising that not everyone who was tested positive by this method wanted to share their status and contacts with a Third Party. The pilot exercise conducted on the Isle of Wight was less than satisfactory; "*71.1% of the contacts provided were reached, but 21.8% of those who originally tested positive said they had not been in close contact with anyone during the required time frame*" (Kleinman, 2020)¹⁰⁰.

⁹⁶ And here we went again with the politicians being seduced by information technologies. For a truly horrifying historical perspective read 'The Blunders of our Governments' KING, A. & CREWE, I. 2014. *The Blunders of our Governments*. London: Oneworld Publications.. Politicians have little sense of learning from past disasters.

⁹⁷ Another statistical diversion – how do we define 'near' to us to the extent where there is a strong 'probability' that we may have infected them. All sorts of issues – within 2 metres on a train is different to within two metres, but downwind, of someone.

⁹⁸ The fact that two phones may be near each other does not imply evidentially that the actual owners were near each other. But, broadly speaking, we can assume that for most of the time the phones are on us.

⁹⁹ <https://www.youtube.com/watch?v=VdIIvAwWmB8>

¹⁰⁰ When track and trace was introduced the satirical magazine *Private Eye* had a spoof article noting that informing the tracers that your enemies had been in contact could then result in them having to isolate for 14 days. There is nothing so unpredictable as human behaviours.

Subsequently the government abandoned its stand-alone approach, after considerable expenditure, and moved to the Apple-Google model, which did factor in a degree of privacy protection (Menedez, 2020) We still wait to hear more about the progress of this. There is some scepticism that it will ever take off:

“Meanwhile, there is scant proof from anywhere around the world that smartphone apps using Bluetooth are an effective method of contact tracing. Back in March, it seemed that the hugely powerful devices most of us carry with us might help us emerge from this health crisis. Now it looks as though a human being on the end of a phone is a far better option.” (Cellan-Jones, 2020d)

Taking on the personal contact approach for England (the other three devolved administrations have their own arrangements), the government hired 27,000 contact tracers to ring up and tell people that they have been in contact with someone infected once an identified case has been reported to them. To do this they were dependent on first having an accurate *infected person contact list* - with all the issues that involves. This method was slow arriving and only partial – having the operators sitting idle for weeks – another shaky start (Chalmers, 2020).

By the middle of July, a system for what is now called “test and trace” was finally in operation with the call centre telephone approach at its heart¹⁰¹. Put out to a series of private contractors to deliver, it is suggested that this “*will not be fully operational until September*” (Marsh, 2020). The government further admitted on 20th July that it had been breaking the law; “*in rolling out its test-and-trace programme without a full assessment of the privacy implications*” (Marsh and Hern, 2020). Once again, we see that the issue lies not entirely in knowing how to get the answer to a question but also about the *governance of the process*.

Providing effective contact tracing information is still giving trouble. The threat of a further wave is being feared, and the capturing of evidence of local clusters and spikes on lifting lockdown is finally moving things toward more localised action (we address this topic in more detail in a later section).

6.4.5 Assembling test data and reporting statistics

Assembling, storing and reporting data on the virus has been a running sore throughout the five months of the pandemic and it still remains a major issue. In the early months of the pandemic, the NHS testing data (Pillar One) was the only source of knowledge about cases and deaths and this was what was adding detail to the modelling process that government was so dependent on¹⁰². For the population at large, trying to measure the risk of the pandemic, this was the only thing they heard about as it was presented through Ministerial briefings and through the media. Cases active in the wider population, later collected through Pillar Two, were largely invisible. Maps and graphs were key part of the approach to informing the public, and we review them in the next section.

6.5 Mapping the Geography

6.5.1 Mapped data and the perception of risk

A widely misunderstood and misrepresented feature of Covid-19 has been its geography. This is important since maps had such a high-profile role in communicating messages about the virus to the public. Scientists know that the virus has a very particular spatial incidence and there is an epidemiological literature showing how contagious diseases travel from place to place over time and how important this is for measures to

¹⁰¹ <https://www.gov.uk/guidance/nhs-test-and-trace-how-it-works>

¹⁰² Public Health England (see later) was formally responsible for tracking the course of the epidemic. It had a staff of only 290 at the time and was quickly overwhelmed.

suppress it. The standard models of geographical diffusion show how the contagion process travels outwards from a source like the waves in a pond from a dropped stone and *hierarchically* flowing through a settlement system from city, to town to village. Nowadays, the *networks* that can see contagion jump from nation to nation and continent to continent through airline travel have become particularly important. All three types of flow have played a role in the Covid-19 pandemic. The models capturing this have provoked the measures to deal with its spread - from lockdown to air travel embargoes.

Maps of viral infections and deaths for Covid-19 have been regularly produced by continent, by nation and by region – with shaded areas. They can inform but they can also mislead. Behind them lies the testing regime in place and the way the data are assembled. Until mid-July in the case of England this meant mapped results from Pillar One only. The right data are needed at the right spatial scale to see the process of infection in action. It is important they have *veracity* – *that is they are a faithful representation of the phenomenon they propose to describe and are perceived as such by the people who look at them.*

In the case of a pandemic like Covid-19, maps serve for much more than just interest. They have a significant influence on the risk that individuals construct from what they see. For example: “*Oh, it’s OK there is not much happening here*”; “*I am going to give that planned trip to the Lake District a miss*”; “*I hope my relatives are OK, there is a lot of infection where they live*” – and so on. Data in maps can become a key contributor to the risk profiles made by not just by individuals, but also by communities, by businesses and by governments. Maps of aggregated data by cases can show whole countries like Spain, regions like Catalonia (Spain) or Victoria (Australia) shut down, or counties like Cumbria telling people to “stay away” from the usual tourist areas and attractions - when this is all they believe they can do if they cannot see where the local clusters *within them* are actually to be found or whether it is a more generalised outbreak.

Sadly, this is an area where both the data and the method of depiction throughout the pandemic have had a disturbing tendency to mislead as we have been working through the crisis. To understand the nature of the problem we need to say something about what mapped data can and cannot tell us.

6.5.2 Shading can mislead: The misuse of choropleth maps

Geographers call a map that uses a single shading applied across an area that represents something of interest a choropleth (“equal shading”) map. Think of it in terms of the focal lens of a camera. It lets you see things sharply at one scale but nothing of more detail below it. It is a strong filter that controls the viewer’s understanding. This is the lens through which we have mostly been looking at the geography of Covid-19 for the last five months (sometimes the maps show proportional circles rather than shading – but the data still refer to the data unit - the region or the strategic local authority as a whole.

Other filters applied to what is displayed come from how the base information is divided into categories; the choice of shading - all shown on the ‘legend’. The eminent geographer Mark Monmonier wrote the authoritative book on ‘*How to Lie with Maps*’ (Monmonier, 1996), warning that we can push a particular message depending on what geographies, data, and visualisations we decide to use. The maps we see on Covid-19 are not then ‘truths’ but are particular depictions of reality. This matters and we should be careful about what is being communicated. Vital for the core message of this paper (by two Geographers) is that a map at a given spatial level does not show is what goes on with the virus *below the spatial scale (level of resolution) of the map in front of us*: the need to see clusters and spikes. With the maps on offer for the last four months we have not been able to see what goes on below the region, the county or the metropolitan borough. The local is where the distribution of the virus gets real to people on the ground.

What most people need to know is this; “what would be a reasonable and informed estimate of the risk I take when I step out of the door?” and “what is the situation around where I live?” but none of the maps and reports of “cases in your area” up to mid-July have been fit for purpose in helping to judge this. Until

July the same was true for information available to the local Directors of Public Health, GPs, or anybody who wants to understand what is going on at their local level and make some attempt to deal with it (Pidd and Halliday, 2020).

6.5.3 Connecting data on the virus to other information: The role of ONS population data

As time went on in the pandemic, the Office for National Statistics (ONS) began to play an increasingly important role in the provision of data to help us understand the wider referents of what was happening¹⁰³. A critical ONS input in the past had been in getting data of all kinds down to *very local levels*. For example, the need to look at deprivation at local neighbourhood level in the 2001 census led to the creation of units called Super Output Areas (SOAs). These were used to calculate an Index of Multiple Deprivation in 2004. The SOAs are sub-divided into two further levels - Lower Layer (LSOA) with around 1,500 people and Middle Layer (MSOA) with up to around 7,000 people.

At a key point in the evolution of the debate about Covid-19, data from the ONS became the most useful source for deaths due to Covid-19. Critically, important was the fact that they could now be linked to other aspects of the population such as age, gender, socio-economic group, and occupation. It was from this data that, for the first time, a detailed map of deaths by Super Output Area¹⁰⁴ was to be seen. On an “eyeball” basis, it was obvious that the map of deaths from the virus was remarkably similar to the Index of Multiple Deprivation¹⁰⁵ showing the most disadvantaged local areas. Closer examination revealed a strong association of deaths from the virus with spatially localised clusters of the least well off and of the BAME population. It was shown that the pandemic had a propensity to have more dangerous effects on certain segments of the social and occupational hierarchy. For example:

- Hospital workers are more exposed to risk because they are dealing with the most extreme cases of infection (and needed from the outset to be well protected with PPE).
- Bus drivers more at risk than senior managers because drivers are in direct contact with many customers.
- Those in low wage ‘precarious’ jobs are more at risk – they cannot afford not to work. (The Chancellor tried as best he could to mitigate this through furlough, but lots of people fell through the cracks).
- People in high-density housing, with shared facilities, are more at risk.

From this point the debate about the impact of the virus began to have a greater focus on the poorest in society - and the BAME groups in particular. Late in the day, the ONS had provided a statistically independent and methodologically sound window on what had been happening at the most local level of geography available.

6.6 Governing the Process

6.6.1 A strong centralising tendency

We now turn to the way the crisis was managed through the system of governance in place. For the UK government prior to the pandemic, Brexit was a dominant and policy focus. Success in capturing support

¹⁰³ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases>

¹⁰⁴ <https://www.ons.gov.uk/methodology/geography/ukgeographies/censusgeography#super-output-area-soa>

¹⁰⁵ <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

for this had come from making complex issues simple for the electorate to grasp by using simple, clear messages. The phrase, “*Take Back Control*” and its successor; “*Get Brexit Done*” - during the election campaign - had clearly worked well. The lesson for government was to be bold, make it simple and have central government assisted by the private sector get on with it. This translated directly over into the pandemic approach. What government failed to take into account, however, was the need to recognise that governing was different from campaigning not least in the face of a fast-moving and deadly virus (ECONOMIST, 2020). The instinct to centralise and retain control pervaded the early approach to policy action along with the tendency to turn quickly to the private sector to deliver practical solutions. An ingrained mistrust of the public service and of the local authorities in particular seemed to be part of the package.

Good governance, however, requires that, in “getting on with it”, there is a need to make some attempt to join up policy and practice *horizontally* across departments of state, the private and third sectors, and *vertically* down the levels all the way to the local - where the contagion process is actually taking place. For Covid-19, there is benefit to be had by being willing to consult and listen - not only to the scientists of SAGE - but also to those others who can help capture the *grounded, context-sensitive reality* of what is going on. Facing a struggle for hard data in the first months, there was considerable local intelligence to be found on what was going on from place to place but no governance vehicle to capture it.

In the event, the local authorities, the Directors of Public Health and the Third Sector often felt left out in the face of an emerging crisis “on their patch” (Earnshaw, 2020b). Yes, decisive early action was necessary at the outset and it needed the centre to take a strong lead - but for four months there was a legacy that still carried the centralising mindset. The scale and speed of what was happening in March could perhaps justify by-passing the complexity of the processes of governance, but potentially facing a “second wave”, it was surely vital to mobilise the full array of local actors. As we discuss in the next section, the ‘penny finally did drop’.

6.6.2 Factoring in the devolved administrations

The existence of a system of devolved powers for Scotland, Northern Ireland and Wales was always going to complicate a centralised UK approach to the pandemic. In legal terms, the devolved administrations can make their own decisions over substantial areas of policy for Covid-19 - and have done so (Wilkes, 2020). Public health and education services are generally devolved to Northern Ireland, Scotland and Wales. Under the Coronavirus Act 2020¹⁰⁶, regulations to restrict movement, public gatherings and require certain premises and businesses to close were initially the same but as time passed they were amended in different ways across the devolved regions¹⁰⁷. In the case of simple “all-UK” statements designed for boldness and central leadership, devolution meant that the other administrations had their own powers to qualify the messages. Where the messages for devolved administrations varied from those for England - made by UK Ministers - there was an opening to confusion, and also for the potential for Scotland to promote independence (Jayanetti, 2020).

Devolved administrations are still dependent on the UK parliament for the Treasury support programmes. Westminster's Scottish Affairs Committee heard there was a lack of transparency from the UK Government in the early days of the crisis. Professor Linda Bauld, an expert on public health at the University of Edinburgh, said Ministers at UK level also failed to make clear when their decisions only applied to England (Pooran and Keyden, 2020). This awkward situation is still a problem, with recriminations both ways about failures from the centre and from the centre about failures in the devolved regions (McClafferty, 2020, Macnab, 2020, Deerin, 2020). It took until 28th July for Michael Gove to announce that the devolved

¹⁰⁶ <https://www.legislation.gov.uk/ukpga/2020/7/contents/enacted>

¹⁰⁷ England and Wales come together under this - with Scotland and Northern Ireland each separately identified.

administrations “*will be joining a shared plan*” in relation to Covid-19 (Davidson, 2020). We await further information on what that plan might look like not just for the devolved regions but for the UK as a whole.

6.6.3 Engaging with local government on public health in England

While the situation with regard to devolution made things more challenging for building a coherent policy message at one level, having to work downwards through the administrative power structures *within England* took complexity to another. It also brought into play political mindsets about engagement with the local authorities¹⁰⁸. An internal administrative reorganisation of local government within England had been moving along since 1994 and was still incomplete.

Further moves to consolidate administrations were still being pursued when the pandemic arrived¹⁰⁹. Part of this complex equation was the situation surrounding the authorities in respect of public health. Each of the higher tier local authorities has a defined function in this area and a Director of Public Health (DPH) to help them discharge it. The following section provides some detail of how this is supposed to work, and how until the middle of July the DPHs had only a *limited role in handling the pandemic crisis*. First, Public Health England needs to be introduced into the discussion.

6.6.4 Public Health England

PHE describes itself as:

*“an executive agency of the Department of Health and Social Care, and a distinct organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific expertise and support”*¹¹⁰. It was *“established on 1 April 2013 to bring together public health specialists from more than 70 organisations into a single public health service.”*¹¹¹

The brief for PHE is:

- *“Making the public healthier and reducing differences between the health of different groups by promoting healthier lifestyles; advising government and supporting action by local government, the NHS and the public;*
- *Protecting the nation from public health hazards;*
- *Preparing for and responding to public health emergencies;*
- *Improving the health of the whole population by sharing our information and expertise, and identifying and preparing for future public health challenges;*

¹⁰⁸ It was not all about the responsibility of the government in place at the time but also the nature of the policy systems and structures they had inherited (mostly from their own predecessors running a programme of austerity).

¹⁰⁹ England, following the grant to London of special powers in 1994, went on to be subdivided into nine Regions. These no longer have any statutory or executive powers function as data collection entities as we saw earlier in Section 2. Combined Authorities were introduced outside Greater London in 2009 to cover areas larger than the existing local authorities but smaller than the regions. These are created voluntarily where a group of local authorities agrees to pool responsibility and, in return, they receive certain delegated functions from central government (chiefly transport and economic policy). There are currently 10 Combined Authorities, beginning with Greater Manchester in 2011, followed by Liverpool City Region along with three others in 2014, two in 2016, two in 2017 and one in 2018.

¹¹⁰ PHE employs 5,500 staff (full-time equivalent), mostly scientists; researchers and public health professionals across 8 local centres, plus an integrated region and centre for London. It operates across 4 regions (north of England, south of England, Midlands and east of England, and London) *“working closely with public health professionals in Wales, Scotland and Northern Ireland, and internationally”*

¹¹¹ <https://www.gov.uk/government/organisations/public-health-england/about>

- *Supporting local authorities and the NHS to plan and provide health and social care services such as immunisation and screening programmes, and to develop the public health system and its specialist workforce;*
- *Researching; collecting and analysing data to improve our understanding of public health challenges and come up with answers to public health problems”.*¹¹²

Public health in England began with local roots but, in 1974, public health and its Directors of Public Health (DPH) were taken out of local government and placed within the NHS. However, following the 2012 Health and Social Care Act¹¹³, it was put back again under the restructuring by Andrew Lansley - for the political history of the restructuring see (Timmins, 2020). This divided responsibility for public health between a national agency, Public Health England (PHE), which has responsibility for infectious diseases, and the local authorities. This came at a time when the latter were under constant pressure from funding cuts under the austerity programme. Ring-fencing protected the service for a time but was removed in the year before the virus hit with a significant loss of many of the most senior and experience staff. In February 2015, the King’s Fund concluded with some prescience:

“The organisational changes contained in the Act have been both damaging and distracting. Damage is evident in the serious fragmentation of commissioning, the bewildering complexity of regulation (to use the words of the Berwick review into patient safety), and the loss of continuity as leaders have been replaced and organisations have been restructured.” (Ham, 2015)

PHE, as a separate agency, had expanded and built up a reputation in some areas but it was quickly overwhelmed by the responsibility for tracking Covid-19. As discussed in the next section, local-area knowledge has always been essential to tracing infections – back to its very origins - and there was an obvious need for Covid-19 to scale up local intervention. A national level response to the virus was clearly needed at the very beginning, but it is hard to see why, until mid-July (in the presence of now visible emerging local clusters) government stuck to its centralised and privatised approach of excluding actors locally and on the ground where knowing the context makes such a difference.

6.6.5 Public health in the local context

Returning to the role of public health in local authorities and their relationship with PHE. Perhaps the easiest route into this is by way of the job specifications for the Directors of Public Health (DPH) with 134 appointees across 152 local authorities (some share the function). Their brief is to support a local government-led approach to improve public health¹¹⁴. A specialist DPH is jointly appointed by the local authority and the Secretary of State of the Department of Health and Social Care (in practice, Public Health England).

A DPH is accountable for the delivery of their authority’s public health duties as a statutory chief officer and as the principal adviser on all health matters to elected members and officers. The DPH has frontline leadership role spanning all three domains of public health - health improvement, health protection and healthcare public health. A key entry in the specification is responsibility for: *“exercising their local authority’s functions in planning for, and responding to, emergencies that present a risk to the public’s health”*. It can hardly be clearer that the DPH should have a key role in a pandemic on behalf of their two sponsors – PHE and the local authority.

¹¹² <https://www.gov.uk/government/organisations/public-health-england/about>

¹¹³ <https://www.gov.uk/government/publications/health-and-social-care-act-2012-fact-sheets>

¹¹⁴ <https://www.gov.uk/government/publications/directors-of-public-health-role-in-local-authorities>

Until the middle of July, government, despite endless requests, refused to make the Covid-19 cases data series available at a level where a DPH could see the local detail or to ask them engage their very considerable local knowledge in tracking and tracing cases of the virus. It is across this layer of governance that one might have imagined there to be some *first line responsibility for pandemic policy to be deployed on the ground*. Not so. The local authority Public Health Departments and their Directors of Public Health had no direct responsibility for track and trace and were even denied the data to know what was going on in their patch – that is until the middle of July. As Allyson Pollak put in in the Guardian on 31st July 2020:

“Instead of putting local public health experts and NHS services in charge of contact tracing, the health secretary ... handed over responsibility to private companies such as the outsourcing giant Serco, which has previously been fined for deaths of workers and members of the public that could have been prevented. The list of problems in the test and trace system is already immense – three data breaches, poor training and faulty online administration systems among them.” (Pollock, 2020)

The 152 local public health departments employ public health professionals and form an on-the-ground network. Critically, what is lost under the arrangement to employ private non-local contractors for track and trace, is that the DPHs and their staff know the local geographical economic and social context.

6.6.6 Carrying out test; track and trace in the private sector

As a governance choice, the allocation of the responsibility for ground-level actions to test; track and trace in England to private providers has been a tale of missteps and functional difficulty. It is hard not to judge that ideology rather than informed understanding of the nature of what was required conditioned the early choices by government (Boseley, 2020). We have nothing more to add about the costly decision to abandon testing in the early days of the pandemic. Messages conveyed to the public in Ministerial press conferences about how many tests would be completed in a given period drove the process forward, and horribly mixed the need to provide transparent information to the public with the political obsession about the statistics matching the predictions. During the first week of July:

“Ministers are spending £10 billion on the test and trace programme which is failing to hit targets – and it’s still not yet fully operational. ... officials in charge of NHS test and trace, which was championed by Health Secretary Matt Hancock, admitted this week it is still not hitting Government targets. A total of 31,421 people who tested positive for Covid-19 in England had their case transferred to the contact tracing system during the first five weeks of its operation, according to figures from the Department of Health and Social Care. Of this total, 23,796 people – 76% – were reached and asked to provide details of recent contacts, while 21% of people could not be reached. A further 980 people, or 3%, could not be reached because their communication details had not been provided. The figures cover the period May 28 to July 1.” (Elvin, 2020).

The geographical state of the spread of the virus was badly misjudged, leaving Pillar Two testing managed by Deloitte, with queues at some centres and no candidates at others. The rest of the story about the over-estimation of numbers and double counting is well known, as is the fact that care homes were out of the loop on all fronts. As noted earlier, this fed into the data system for reporting and monitoring the progress of the pandemic – producing information that was partial, double counted, geographically illiterate and *plain wrong* (as with death rates were withdrawn for review). The people were expected to make their personal risk assessments on this basis by watching “the cases near you” in the media.

In parallel, the Government was promising the “world beating” track and trace app. The reach out for a “technofix” was beguiling - but as the Isle of Wight pilot quickly revealed (Cellan-Jones, 2020c) - entirely misplaced in the UK context (others made it work – Germany, Denmark, and Ireland for example (Cellan-

Jones, 2020b)). There also was the call centre approach under Serco with its 27,000 staff to manage track and trace. All this had the effect of taking the “eye off the ball” for the proven effectiveness, since the days of cholera and the parish pump, of locally knowledgeable people mapping clusters and tracing contacts. There was an infrastructure in place that could help but it was entangled in disconnected and dysfunctional governance systems and denied the granular data it needed to identify local clusters and peaks. We are even now stuck with a national system that can find less than 80 percent of cases – even in previously identified high concentration areas (Halliday, 2020).

6.7 Learning the Lessons

6.7.1 Local data changes the debate

What has been learned during the pandemic is that geography and distance play an important part in the process of infection. Proximity does matter. If someone who is infected is nearby to you then the aerosol dispersion of the virus puts you at risk. So, wear masks and maintain a ‘physical distance’ between each other. Large groups of people gathered together in crowded locations (whether it is a pub, a club, a religious building, or a house) accelerate the risk of contagion – hence maintain ‘social distance’ by avoiding being involved in such gatherings. Those working in precarious jobs (the ‘precariat’) are more at risk of being infected – the clothing sweatshops in Leicester, the workers in meat processing factories, the care home workers who lacked PPE in the early stages of the pandemic are all more at risk.

Many in the precariat do not have sickness cover and are more likely to go to work if ill. Now add in those who are in poor or crowded accommodation, or multi-occupancy houses, or who have extended families in the same household. With access to local level cases data (at MSOA), even a cursory glance at the figures shows a strong association with the most disadvantaged towns, suburbs and neighbourhoods in the country. It also shows how persistent the infection tends to be in such areas.

6.7.2 Local data can empower new actors

The next challenge, as the mobility of people resumed, was to have information about how infected people have interacted with others, particularly during a period when they were asymptomatic. Without a fully functional track and trace programme as yet in prospect in the UK, this is an existential danger (Marsh and Blackall, 2020, Crace, 2020). Indeed, such has been the lack of progress on this that on July 29 the Director of Public Health for Sandwell announced that they would create their own local version of track and trace: *“The council has instead decided to set up its own system to deliver “a lite version of contact tracing” to plug the gaps of people with the virus not being reached. Language has been a particular barrier amid a struggle to provide staff with translation services to help them communicate with people who don’t speak English”* (Manthorpe and Allegretti, 2020).

Up to Mid-July, the Directors of Public Health were not just being blindsided by the lack of reliable track and trace for infection control coming from the central system, but also by the absence of granular data on infections that would help them carry out their assigned mission in the local area. The arrival of more detailed data for ‘Middle Super Output Areas’ (MSOAs) was a game-changer. Data could show infections at the most detailed geographical levels, but still maintain confidentiality and not risk the disclosure of information that can be identified to an individual. It was now possible to see for the first-time hotspots and clusters and could alert local agencies at every level to step up their activity in helping suppress further

spread. We now have the official Government Covid-19 Dashboard¹¹⁵ started to report infection cases¹¹⁶ by MSOA on a weekly basis, with open and downloadable data¹¹⁷. This represented a huge step forward.

However, to understand where new cases are located in a given area would require address-level data. We understand the DPH now has access to this^{118 119}, and local authorities are being given access as well (Halliday et al., 2020). This opens the door to the sort of action we have already seen in Sandwell with local “old fashioned” but effective track and trace. It has also opened a further window on the failure of the centralized telephone system to keep up with events in the hotspot areas. Once identified as hotspots through the new data, local areas can target messages both to comply with the preventive measures and to seek testing more actively if they show a wide range of symptoms.

Inevitably, of course, knowing where to look will see cases rise as testing is sought more widely. A danger that has been pointed out is that there may be a perverse incentive – finding more cases this way may see more stringent measures applied and a local lockdown. Better this, however, than runaway contagion. There is also, as we pointed out in an earlier paper, a risk of stigmatisation where clusters can be identified with some local groups or areas. This is where trust plays in strongly. Having people do the right thing and seek testing will work best set in an environment of trust, where they can expect a pushback from locally aware agencies and players that will be supportive.

6.7.3 Co-Designing a central-local response to a “Second Wave”

The month of August opened with the Government imposing restrictions on movement for large parts of northern England, reacting to the identification of local infection clusters. Coming the day before the Muslim festival of EID, and the fact that many of the areas so affected have Muslim communities, the timing (9.18 pm with no prior notice) was not the most culturally sensitive announcement – indeed it was widely criticised (Rodger, 2020, Earnshaw, 2020a). The last-minute move provided a glaring example of the disconnect between the centre and those who, at local level, would have given them better and certainly more timely advice. We raised the issue of orchestration of policy earlier in the paper. This example shows how badly it is needed that policy should be co-designed rather than centrally imposed. The central government has its role to play but so does the local. There is enormous capacity waiting to be mobilised at the local level. Up to this point, there has been little scope for this to be deployed directly to the task of controlling the spread of the virus. The arrival of better data for all to see the local incidence of Covid-19 should be a game-changer in this respect.

Whether there is a possible second wave, or whether the first will have a series of earthquake-like aftershocks, there are genuine fears among scientists (and SAGE) that, as Chris Whitty warned: “*Britain has “probably reached the limit of opening up society” and will only be able to open schools in September by trading some existing freedoms*” (Donnelly, 2020). There was a flurry of press articles on August 2nd stating that the Government was considering shutting pubs, or even making many of those aged over 50 stay at home for a prolonged period (SKY, 2020b).

¹¹⁵ <https://coronavirus-staging.data.gov.uk/cases>

¹¹⁶ “Number of people with a lab-confirmed positive test newly reported on or up to the latest reporting date.”
<https://coronavirus-staging.data.gov.uk/about-data#daily-and-cumulative-numbers-of-cases>

¹¹⁷ https://coronavirus.data.gov.uk/downloads/msoa_data/MSOAs_latest.csv

¹¹⁸ <https://www.gov.uk/government/publications/accessing-public-health-england-data/about-the-phe-odr-and-accessing-data>

¹¹⁹ <https://www.england.nhs.uk/contact-us/privacy-notice/how-we-use-your-information/covid-19-response/nhs-covid-19-data-store/>

Here we still see a continuation of the macro-geographical view of the central government, looking at aggregate figures across often meaningless geographical areas, not carefully evaluating the implications of an announcement, and then imposing conditions through a late central fiat. This was shown to be clearly evident in the interview with the Health Secretary by Naga Munchetty on July 31st (Hennings, 2020), when he seemed to contradict some of the statements made the previous day about the new conditions in northern England. Small wonder, then, that in the last week of July:

“More than half of the UK does not trust the government’s advice on when it is safe to return to work, school and leisure activities, a new poll suggests” (Stubley, 2020), with the Prime Minister *“accused of sleepwalking into a second Covid wave after a series of mixed messages and conflicting guidelines.”* (Selby et al., 2020)

What is worrying is that the situation regarding Covid-19 response is that it is like an *iceberg*. We most clearly see the smaller part above the waterline – the central government - dominating the policy interventions Below, and less visibly, the rich landscape of Directors of Public Health, Mayors, Local Authority Chief Executives and all those who have local knowledge are left trying to articulate central fiat into local relevance while doing their best to support people affected by the lockdown - for example a multi-agency emergency response announced in Manchester on August 2nd (SKY, 2020a).

Given agency and armed with accurate local and (with due protection) address-based data (as in Hong Kong for example¹²⁰), local players can construct local networks and deliver information campaigns that are *locally, culturally, and economically focused*. Many are doing this already, like Barnet¹²¹, Blackburn with Darwen and Sandwell (starting their own local track and trace as we have seen) and no doubt others - but they are undertaking such actions within the noise created by central messaging, and by the progressive erosion of public trust and confidence in a government that is so often behind the curve of the viral challenge.

6.8 Conclusion

Never before have we been faced with such a crisis of national and local governance, with potentially catastrophic implications for society and economy, and with such differentiated impacts on particular demographics (the elderly, rather than the young but the latter as key players in the process). On the ground the *national* pandemic has always ‘played out’ at *local and family* levels, across geographical spaces that bear little resemblance to the administrative geographies applied by the central government.

Covid-19 is a particularly potent enemy to human society. Its most alarming feature is the variety that it can display in its form, its modes of contagion, its speed of development – its sheer ability to defeat the traditional methods of control. Ashby’s (1956) Law of Requisite Variety (Naughton, 2017) would suggest that to control a system; *“the number of states of its control mechanism must be greater than or equal to the number of states in the system being controlled”*. Converted into simple language this indicates that – facing a variable and flexible entity like the virus – simple and central control in the hands of a largely closed managing group can only go so far.

Control in the local and on the ground as part of the package would give far greater scope for tackling Covid-19 with the requisite variety to have a meaningful impact. It seems that, late in the day, this message

¹²⁰ <https://chp-dashboard.geodata.gov.hk/covid-19/en.html>

¹²¹ https://www.barnet.gov.uk/sites/default/files/slide_23_data_sharing_agreement_test_and_trace_phe_lbb.pdf

is getting through but we probably have a window of months at the most to recover the ground lost in tackling the virus through turning toward a flexible and context-sensitive approach.

From a more practical and less theoretical point of view, there are broad lessons emerging from the experience of the last five months. The most important is the need to expedite the availability of accurate, trusted, and usable data and intelligence, and to engage better with the variable geographies of contagion. It was only when solving the local data issue allowed us to set the microscope lens to where the local became visible (in mid-July), that hotspots and clusters became the news headlines in the UK. We do, at last, have the basis for a personal risk assessment that says something meaningful about “cases near you”. We now understand that it was no coincidence that the early ONS map of deaths from the virus looked similar to the Index of Multiple Deprivation. The local perspective allowed us to see different dimensions of both the distribution of infection and of the economic and social context where this takes place.

For the last five months the government has struggled to bring together the intelligence needed to understand the nature of what has been going on around us with Covid-19. Since this was an unprecedented virus event, this was not so hard to understand at the outset. But, taking a war analogy, it was surely an absolute requirement to know as quickly as possible what was the capability of the enemy to hurt us, and how and where and to come up with a strategy and some tactics to counter the threat. So, for building a strategy what key lessons should we emphasis from a paper that had its origins in the dismay of a couple of geographers about the way Covid-19 data was being collected, assembled and displayed?

- *Trust the local and work together in partnership – local actors have the intelligence to nuance central strategy at a community level*

One of the signal failures of the approach to the pandemic in the early months was its distinct centralising and privatising tendency. Struggling to be effective on its own terms, it had the unhelpful property that it under-valued the enormous potential available from among the voluntary and charitable sector, civil society organisations, the smaller than corporate businesses and local community organisations. It also left no scope for engaging with other levels of governance such as the big city and sub-regional combined authorities and local government in general. Local organisations and actors have not been idle. They have been very busy indeed. Unmeasured except by uplifting stories and anecdotes, the wider set of non-government and non-corporate bodies in the country have played an enormous role¹²² in helping with the social and economic outfall of the virus and the emergence from lockdown (Anon, 2020b, Anon, 2020c, Anon, 2020a).

Many will have felt themselves to be on the side-lines, watching a process of critical importance to them, but not being called upon in any coherent way to lend their knowledge and experience. Yes, it is (as we have shown) a complex array, and yes again in the early days broad-scale mobilisation would have been an issue. However, five months on it is finally being taken on board that *context is critical*, for example whether it is about knowing the situation of the BAME community or of workplaces where risk is higher, or just where the young people usually hang out who seem to be ignoring the advice.

We have emphasised the critical role of the Directors of Public Health. What has been lacking from the centre is an acknowledgement of the value of having a network of trained public health professionals on the ground across the entire country. They had been aware all along of what was going on in their patch, but they needed the data to legitimate their position and to get the issue up to the attention of central policy. Thankfully, it finally arrived. The Office for National Statistics and Public Health England are now providing

¹²² For example: <https://www.blackburn.gov.uk/coronavirus/bwd-help-hub-residents>

the consistent and full geographical coverage of statistics at a granular level we need to inform and complement the localised and contextual track and trace.

Inequality and disadvantage are a primary contextual variable for what we are now better able to see and this should have a profound effect on macro-policy once the immediate event is past. In the short term, and critically, with a window before the second wave fast-closing, the empowerment of the local agents – public health in particular – should be a coherent next step in the orchestration of policy.

- *Target resources strategically and rapidly to raise the scale of testing, tracking and tracing*

Testing, testing, testing was an early mantra from the WHO as the means to defeat the virus. Nothing has changed here. This is still the most vital weapon in the armoury. In early August voice after expert voice was being raised that the testing regime was inadequate. It was neither moving fast enough nor penetrating deeply enough from place to place, and recent criticism argues that the testing regime actively ignored public sector capability in ideologically favouring the private sector (Boseley, 2020). There have been reports of new, faster turnaround, testing techniques but we are hearing at the same time that even in the, now identified, hotspots the existing organisation of the system makes it difficult to achieve the coverage needed.

Testing is just to identify the cases. It leaves open the question of contact tracing which is still centrally deployed on a phone basis; declaring that it will not be “fully up and running” by September. With a small and closing window, this is surely not good enough, and there are fears that the return to schools and to work in offices could generate a second wave more than twice that of the first one (SKY, 2020c). Little wonder that some local communities have decided to protect their people by running their own track and trace. Blackburn with Darwen sees it this way:

“Paul Fleming, the council's director of business change, said the system, launched in partnership with Public Health England, complemented the national service “because we have the local knowledge of the area and the ability to send officers round to people's addresses.”” (BBC, 2020a)

“Complementing” is the key word in the above statement. With our forthright promotion of the local, we are not recommending that central government steps back and leaves responsibility to the local. The national-level systems in place need to be *fixed and run up to the right scale* to meet the challenge. It is the *effective orchestration* of the levels of governance we are looking for. Facing the second wave, it is *partnership, speed and commitment* that are the vital process requirements. But this would best be set within and *coherent and openly declared strategy* from the centre. A second wave and a further lockdown must be a terrifying prospect for the Chancellor as well as the population at large. The economy has been badly weakened by the first wave, and it is ill-equipped to survive a second. The month of August should not be about going on holiday and keeping the pubs open. It needs to be a time of intensive policy activity to repair the systems in place and put new ones quickly into play.

Five months into the pandemic and there is still a series of dominantly macro-level responses. We still depend on ministerial announcements that react to unfolding events. Reports in the weekend of August 1 noted “war gaming” scenarios involving modellers, the Prime Minister, and the Chancellor. Rumours appeared of possible lockdowns of the over 50s (Cole and Middleton, 2020), or of some form of containment within the M25 in London (ITV, 2020). These hardly generated credibility, and instead led to strong reactions and confusion (Mulheirn, 2020). On August 5th the Children’s Commissioner for England questioned why pubs had been opened before robust testing was provided for schools, arguing that “*if the choice has to be made in a local area about whether to keep pubs or schools open, then schools must always take priority*” (Longfield, 2020). In reviewing the regulations for the restrictions in place in the North of England national newspapers highlighted inconsistencies about where people could, or could not, meet. For example:

“Gatherings of two or more people in a private dwelling who are not from the same household have been banned under new coronavirus lockdown rules imposed in the north of England, meaning couples who do not live together can no longer have sex indoors and stay overnight... However, holiday accommodations such as hotels and bed and breakfasts are not included under the “private dwellings” definition, which means couples will be able to meet in hotel rooms.” (Ng, 2020)

We must do better than this.

6.9 Chapter bibliography

- ANON. 2020a. *Blackburn organisation doubles food support during Covid-19*. Lancashire Business View. Published July 2. Available: <https://www.lancashirebusinessview.co.uk/latest-news-and-features/blackburn-organisation-doubles-food-support-during-covid-19>. [Accessed July 3 2020].
- ANON. 2020b. *Partners support vulnerable people through Covid-19 crisis*. The Shuttle. Published May 3. Available: <https://theshuttle.org.uk/partners-support-vulnerable-people-through-covid-19-crisis/>. [Accessed June 4 2020].
- ANON. 2020c. *Talha Mulla’s Amazing Charity Story*. Pleckgate High School. Published April 27. Available: <https://www.pleckgate.com/talha-mullas-amazing-charity-story/>. [Accessed May 7 2020].
- BBC. 2020a. *Coronavirus: Blackburn tracing launched as NHS Test and Trace ‘not fast enough’*. British Broadcasting Corporation (BBC). Published August 4. Available: <https://www.bbc.co.uk/news/uk-england-lancashire-53648362>. [Accessed August 4 2020].
- BBC. 2020b. *Hancock calls for urgent review into coronavirus death data in England*. British Broadcasting Corporation (BBC). Published July 17. Available: <https://www.bbc.co.uk/news/health-53443724>. [Accessed July 17 2020].
- BOSELEY, S. 2020. *UK virologists criticise handling of Covid testing contracts*. Guardian (UK). Published August 4. Available: <https://www.theguardian.com/world/2020/aug/03/uk-virologists-criticise-handling-coronavirus-testing-contracts>. [Accessed August 4 2020].
- CELLAN-JONES, R. 2020a. *Coronavirus: England’s test and trace programme ‘breaks GDPR data law’*. British Broadcasting Corporation (BBC). Published July 20. Available: <https://www.bbc.co.uk/news/technology-53466471>. [Accessed July 20 2020].
- CELLAN-JONES, R. 2020b. *Coronavirus: Ireland’s Covid Tracker app is out - where’s England’s?* British Broadcasting Corporation (BBC). Published July 7. Available: <https://www.bbc.co.uk/news/technology-53322751>. [Accessed July 7 2020].
- CELLAN-JONES, R. 2020c. *Coronavirus: Isle of Wight contact-tracing app trial - a mixed verdict so far*. British Broadcasting Corporation (BBC). Published May 18. Available: <https://www.bbc.co.uk/news/technology-52709568>. [Accessed May 18 2020].
- CELLAN-JONES, R. 2020d. *Coronavirus: What went wrong with the UK’s contact tracing app?* British Broadcasting Corporation (BBC). Published June 20. Available: <https://www.bbc.co.uk/news/technology-53114251>. [Accessed June 20 2020].
- CHALMERS, V. 2020. *NHS Covid-19 contact tracers say the ‘shambolic’ system is ‘obviously not ready’ and admit they have nothing to do all day - despite being paid up to £27-an-hour*. Daily Mail (London). Published June 1. Available: <https://www.dailymail.co.uk/news/article-8375925/Contact-tracers-say-obviously-not-ready-admit-day.html>. [Accessed June 1 2020].

- COLE, W. & MIDDLETON, J. 2020. *Millions of over 50s could be told to stay at home to avoid a blanket second lockdown under 'nuclear plans' drawn up by Boris Johnson after bubble bursts on easing lockdown*. Daily Mail (London). Published August 2. Available: <https://www.dailymail.co.uk/news/article-8584445/Over-50s-face-stay-home-order-nuclear-plans-drawn-Boris-Johnson.html>. [Accessed August 2 2020].
- COMMISSION. 2020. *Coronavirus: An EU approach for efficient contact tracing apps to support gradual lifting of confinement measures*. European Commission. Published April 16. Available: https://ec.europa.eu/commission/presscorner/detail/en/IP_20_670. [Accessed April 16 2020].
- CRACE, J. 2020. *Just another quiet day in the home-office of dedicated contact tracers*. Guardian (UK). Published August 5. Available: <https://www.theguardian.com/politics/2020/aug/05/just-another-very-quiet-day-in-the-home-office-of-dedicated-contact-tracers>. [Accessed August 5 2020].
- DAVIDSON, G. 2020. *UK Government to release shared Covid-19 plan with Holyrood*. The Scotsman. Published July 28. Available: <https://www.scotsman.com/health/coronavirus/uk-government-release-shared-covid-19-plan-holyrood-2925691>. [Accessed July 30 2020].
- DAVIES, W. 2020. *Coronavirus and the rise of rule-breakers*. New Statesman. Published July 8. Available: <https://www.newstatesman.com/2020/07/coronavirus-and-rise-rule-breakers>. [Accessed July 14 2020].
- DEERIN, C. 2020. *How the Covid-19 crisis may accelerate the break-up of the UK*. New Statesman. Published July 20. Available: <https://www.newstatesman.com/politics/wales/2020/07/how-covid-19-crisis-may-accelerate-break-uk>. [Accessed July 25 2020].
- DONNELLY, L. 2020. *Prof Chris Whitty's 'trade-offs' warning could mean pubs closing so schools can open*. Daily Telegraph (London). Published July 31. Available: <https://www.telegraph.co.uk/news/2020/07/31/prof-chris-whittys-trade-offs-warning-could-mean-pubs-closing/>. [Accessed July 31 2020].
- EARNSHAW, T. 2020a. *Kirklees council leader slams timing of new coronavirus restrictions as insensitive*. Yorkshire Live. Published July 31. Available: <https://www.examinerlive.co.uk/news/west-yorkshire-news/kirklees-council-leader-slams-timing-18695264>. [Accessed July 31 2020].
- EARNSHAW, T. 2020b. *Special report: Inside Blackburn with Darwen's coronavirus spiral as pandemic worsens and blame game begins*. Lancashire News. Published July 20. Available: <https://www.lancs.live/news/lancashire-news/special-report-inside-blackburn-darwens-18629582>. [Accessed July 20 2020].
- ECONOMIST. 2020. *An unfortunate case study: The British state shows how not to respond to a pandemic*. Economist. Published June 18. Available: <https://www.economist.com/britain/2020/06/18/the-british-state-shows-how-not-to-respond-to-a-pandemic>. [Accessed June 18 2020].
- ELVIN, S. 2020. *Government to spend £10,000,000,000 on test and trace that still misses targets*. Metro News. Published July 9. Available: <https://metro.co.uk/2020/07/09/government-spent-1000000000-failing-test-trace-programme-12967585/>. [Accessed July 27 2020].
- GREGORY, A. 2020. *'A brutal reality': Boris Johnson admits UK did not learn lessons of Sars or Mers*. Independent (London). Published May 27. Available: <https://www.independent.co.uk/news/uk/politics/boris-johnson-coronavirus-test-contact-tracing-sars-mers-hancock-latest-a9535781.html> [Accessed June 4 2020].

- HACKETT, M. 2020. *The UK's 'World Beating' Coronavirus App Is Being Canned*. Vice Media. Published June 18. Available: <https://www.vice.com/en/article/jqx5p8/uk-track-trace-coronavirus-app>. [Accessed June 18 2020].
- HALLIDAY, J. 2020. *Test and trace failing to contact thousands in England's worst-hit areas*. Guardian (UK). Published July 22. Available: <https://www.theguardian.com/world/2020/jul/22/test-and-trace-system-in-england-failing-to-contact-thousands>. [Accessed July 23 2020].
- HALLIDAY, J., MCINTYRE, N. & WALKER, P. 2020. *Councils in England to be offered near real-time data on Covid cases*. Guardian (UK). Published August 6. Available: <https://www.theguardian.com/society/2020/aug/06/councils-in-england-to-be-offered-near-real-time-data-on-covid-cases>. [Accessed August 6 2020].
- HAM, C. 2015. *The government's record on NHS reform: our verdict*. The King's Fund. Published February 6. Available: <https://www.kingsfund.org.uk/blog/2015/02/government-record-nhs-reform-our-verdict>. [Accessed July 28 2020].
- HENIG, R. M. 2020. *Experts warned of a pandemic decades ago. Why weren't we ready?* National Geographic. Published April 9. Available: <https://www.nationalgeographic.co.uk/science-and-technology/2020/04/experts-warned-of-pandemic-decades-ago-why-werent-we-ready>. [Accessed April 20 2020].
- HENNINGS, E. 2020. *Naga Munchetty hits out at Matt Hancock in fiery lockdown row 'Not what I asked was it!* Daily Express (London). Published July 31. Available: <https://www.express.co.uk/showbiz/tv-radio/1316771/Naga-munchetty-snap-matt-hancock-coronavirus-lockdown-rules-bbc-breakfast-video>. [Accessed July 31 2020].
- HONEYCOMBE-FOSTER, M. 2020. *Boris Johnson says he's ditched 'libertarian' position on obesity after coronavirus battle*. Politics Home. Published June 29. Available: <https://www.politicshome.com/news/article/boris-johnson-says-hes-ditched-libertarian-position-on-obesity-after-coronavirus-battle>. [Accessed July 22 2020].
- ITV. 2020. *London Mayor Sadiq Khan 'surprised' over plans to use M25 to seal off London if Covid-19 surges*. ITV. Published August 3. Available: <https://www.itv.com/news/london/2020-08-03/coronavirus-london-mayor-sadiq-khan-surprised-over-plans-to-use-m25-to-seal-off-london-if-covid-19-surges> [Accessed August 3 2020].
- JAYANETTI, C. 2020. *The road to independence: How Covid and Brexit pushed Scotland from the Union*. Politics.co.uk. Published August 3. Available: <https://www.politics.co.uk/comment-analysis/2020/08/03/the-road-to-independence-how-covid-and-brexit-pushed-scotland>. [Accessed August 3 2020].
- KING, A. & CREWE, I. 2014. *The Blunders of our Governments*. London: Oneworld Publications.
- KLEINMAN, Z. 2020. *Coronavirus: 'Almost half' of Blackburn Covid-19 contacts not reached*. British Broadcasting Corporation (BBC). Published July 19. Available: <https://www.bbc.co.uk/news/health-53463068>. [Accessed July 19 2020].
- LONGFIELD, A. 2020. *Children and schools must come before pubs and shops in planning for future Covid-19 lockdowns*. Children's Commissioner for England. Published August 5. Available: <https://www.childrenscommissioner.gov.uk/2020/08/05/children-and-schools-must-come-before-pubs-and-shops-in-planning-for-future-covid-19-lockdowns/>. [Accessed August 5 2020].
- LOVETT, S. 2020. *'You can only play so much Fifa': Contact tracers still waiting on work as Test and Trace criticism mounts*. Independent (London). Published July 2. Available:

- <https://www.independent.co.uk/news/health/test-and-trace-coronavirus-latest-lockdown-figures-contact-tracing-nhs-a9593336.html> [Accessed July 2 2020].
- MACNAB, S. 2020. *Covid in care homes 'is the worst failure of devolution'*. The Scotsman. Published May 20. Available: <https://www.scotsman.com/news/politics/covid-care-homes-worst-failure-devolution-2858660>. [Accessed May 28 2020].
- MANTHORPE, R. & ALLEGRETTI, A. 2020. *Coronavirus: Sandwell Council sets up own contact tracing system amid anger with government's version*. Sky.com. Published August 1. Available: <https://news.sky.com/story/coronavirus-sandwell-council-sets-up-own-contact-tracing-system-amid-anger-with-governments-version-12038597>. [Accessed August 2 2020].
- MARSH, S. 2020. *NHS test-and-trace app 'not fully operational until September'*. Guardian (UK). Published June 4. Available: <https://www.theguardian.com/society/2020/jun/04/nhs-track-and-trace-system-not-expected-to-be-operating-fully-until-september-coronavirus>. [Accessed June 4 2020].
- MARSH, S. & BLACKALL, M. 2020. *England's contact tracers 'making handful of calls' a month*. Guardian (UK). Published August 5. Available: <https://www.theguardian.com/world/2020/aug/05/englands-contact-tracers-making-handful-of-calls-a-month>. [Accessed August 5 2020].
- MARSH, S. & HERN, A. 2020. *Government admits breaking privacy law with NHS test and trace*. Guardian (UK). Published July 20. Available: <https://www.theguardian.com/technology/2020/jul/20/uk-government-admits-breaking-privacy-law-with-test-and-trace-contact-tracing-data-breaches-coronavirus>. [Accessed July 21 2020].
- MCCLAFFERTY, E. 2020. *Coronavirus: Devolution could be 'blown off course' by Covid-19*. British Broadcasting Corporation (BBC). Published July 16. Available: <https://www.bbc.co.uk/news/uk-northern-ireland-53423313>. [Accessed July 16 2020].
- MCGUINNESS, A. 2020. *Coronavirus: NHS prioritised over social care during early stages of outbreak, minister says*. Sky.com. Published May 20. Available: <https://news.sky.com/story/coronavirus-nhs-prioritised-over-social-care-during-early-stages-of-outbreak-minister-says-11991378>. [Accessed May 20 2020].
- MENEDEZ, E. 2020. *NHS track and trace app ditched for new model focused on better privacy*. Metro News. Published June 18. Available: <https://metro.co.uk/2020/06/18/nhs-track-trace-app-ditched-new-model-focused-better-privacy-12871208/>. [Accessed June 19 2020].
- MONMONIER, M. 1996. *How to Lie with Maps*. Chicago: University of Chicago Press.
- MOTTRAM, R. 2020. *Eight provisional lessons from Britain's handling of COVID-19*. London School of Economics & Political Science. Published July 6. Available: <https://blogs.lse.ac.uk/politicsandpolicy/covid19-crisis-management-machinery/>. [Accessed July 22 2020].
- MULHEIRN, I. 2020. *The government is playing a very dangerous game over its lockdown strategy*. Independent (London). Published August 3. Available: <https://www.independent.co.uk/voices/coronavirus-lockdown-manchester-deaths-boris-johnson-hancock-second-wave-a9650981.html>. [Accessed August 3 2020].
- NAUGHTON, J. 2017. *Ashby's Law of Requisite Variety*. Edge.org. Available: <https://www.edge.org/response-detail/27150>. [Accessed July 23 2020].
- NG, K. 2020. *Manchester coronavirus lockdown: Sex ban back on as new regulations released*. Independent (London). Published August 4. Available:

- <https://www.independent.co.uk/news/uk/home-news/manchester-coronavirus-lockdown-sex-ban-covid-regulations-government-a9654061.html>. [Accessed August 5 2020].
- NICE, A. 2020. *The government should stop avoiding parliamentary scrutiny of its coronavirus legislation*. Institute for Government (UK). Published June 2. Available: <https://www.instituteforgovernment.org.uk/blog/government-stop-avoiding-parliamentary-scrutiny-coronavirus-legislation>. [Accessed June 4 2020].
- ONS. 2020. *Impact of coronavirus in care homes in England: 26 May to 19 June 2020*. Office for National Statistics (UK). Published July 3. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/impactofcoronavirusincarehomesinenglandvivaldi/26mayto19june2020>. [Accessed July 3 2020].
- PA. 2020. *Coronavirus: English care homes policy 'reckless', MPs say*. Guardian (UK). Published July 29. Available: <https://www.theguardian.com/world/2020/jul/29/coronavirus-english-care-homes-policy-reckless-mps-say>. [Accessed July 30 2020].
- PIDD, H. & HALLIDAY, J. 2020. *Coronavirus data failing local authorities, health bosses in England say*. Guardian (UK). Published July 24. Available: <https://www.theguardian.com/world/2020/jul/24/coronavirus-data-failing-local-authorities-england-health>. [Accessed July 24 2020].
- POLLOCK, A. 2020. *Thanks to outsourcing, England's test and trace system is in chaos*. Guardian (UK). Published July 31. Available: <https://www.theguardian.com/commentisfree/2020/jul/31/outsourcing-england-test-trace-nhs-private>. [Accessed July 31 2020].
- POORAN, N. & KEYDEN, N. 2020. *Devolution 'hindered UK government's response to Coronavirus' inquiry hears*. Daily Record (Glasgow). Published June 18. Available: <https://www.dailyrecord.co.uk/news/politics/devolution-hindered-uk-governments-response-22215912>. [Accessed June 20 2020].
- RODGER, J. 2020. *Muslim Council hits out at government over how north of England lockdown was announced before Eid*. Birmingham Live. Published July 31. Available: <https://www.birminghammail.co.uk/news/uk-news/muslim-council-hits-out-government-18693805>. [Accessed July 31 2020].
- SELBY, A., SHARPE, A. & MCLAUGHLIN, C. 2020. *Boris Johnson 'sleepwalking' into second wave with chaotic handling of coronavirus crisis*. Daily Mirror (London). Published August 1. Available: <https://www.mirror.co.uk/news/politics/boris-johnson-sleepwalking-second-wave-22455084>. [Accessed August 1 2020].
- SKY. 2020a. *Coronavirus: Greater Manchester to 'maximise resources' as it tries to 'reverse the spike' in infections*. Sky.com. Published August 3. Available: <https://news.sky.com/story/coronavirus-major-incident-declared-in-greater-manchester-after-covid-19-rise-12041276>. [Accessed August 3 2020].
- SKY. 2020b. *Coronavirus: Millions of over-50s could be told to stay at home to avoid second nationwide lockdown*. Sky.com. Published August 2. Available: <https://news.sky.com/story/coronavirus-millions-of-over-50s-could-be-told-to-stay-at-home-to-avoid-second-nationwide-lockdown-12040780>. [Accessed August 2 2020].
- SKY. 2020c. *Coronavirus: Second COVID-19 wave twice as big as the first without effective test, trace, isolating strategy, says new modelling study*. Sky.com. Published August 4. Available: <https://news.sky.com/story/coronavirus-second-covid-wave-twice-as-big-as-the-first-without->

- [effective-test-trace-isolating-strategy-says-new-modelling-study-12042000](#). [Accessed August 4 2020].
- SMITH, A. 2020. *Coronavirus: Johnson's libertarian views behind hesitancy to lock down Britain*. NBC News. Published March 20. Available: <https://www.nbcnews.com/news/world/coronavirus-johnson-s-libertarian-views-behind-hesitancy-lock-down-britain-n1164786>. [Accessed July 22 2020].
- STUBLEY, P. 2020. *Coronavirus: Most people don't trust UK government's advice on when it is safe to resume normal life, poll finds*. Independent (London). Published July 28. Available: <https://www.independent.co.uk/news/uk/politics/coronavirus-uk-poll-boris-johnson-government-lockdown-end-a9640976.html> [Accessed July 31 2020].
- SYAL, R. 2020. *UK failed to plan for economic impact of flu-like pandemic, says watchdog*. Guardian (UK). Published July 23. Available: <https://www.theguardian.com/world/2020/jul/23/uk-failed-to-plan-for-economic-impact-of-flu-like-pandemic-says-watchdog>. [Accessed July 24 2020].
- TIMMINS, N. 2020. *Never Again? The story of the Health and Social Care Act 2012*. Institute for Government (UK). Published July 12. Available: https://www.instituteforgovernment.org.uk/sites/default/files/publications/Never%20again_0.pdf. [Accessed July 27 2020].
- WALKER, P. 2020. *Boris Johnson says coronavirus could have been handled differently*. Guardian (UK). Published July 24. Available: <https://www.theguardian.com/world/2020/jul/24/boris-johnson-says-coronavirus-could-been-handled-differently>. [Accessed July 24 2020].
- WILKES, G. 2020. *Coronavirus and devolution*. Institute for Government (UK). Published July 1. Available: <https://www.instituteforgovernment.org.uk/explainers/coronavirus-and-devolution>. [Accessed July 3 2020].
- YORKE, H. & PENNA, D. 2020. *More than 90 coronavirus laws and rules imposed without Parliamentary scrutiny*. Daily Telegraph (London). Published June 17. Available: <https://www.telegraph.co.uk/politics/2020/06/17/90-coronavirus-laws-rules-imposed-without-parliamentary-scrutiny/>. [Accessed June 19 2020].

7.0 The Covid-19 Economy: Deep Recession and Socially Unequal Outcomes

This paper was released on 10 October 2020

The Pandemic Summary Timeline – 7 August to 10 October 2020

8 August – Compulsory face-coverings are now required in a wide range of locations. A slogan "Don't kill Granny" is introduced to try and maintain social distancing.

10 August – Test and trace starts to move towards being more locally enacted.

13 August – A-level exam results are published, and the moderation by OFQUAL results in a significant reduction in expected grades, particularly for more disadvantaged students.

14 August – While the government expresses some optimism about infection levels, SAGE are more worried that the situation is not under control.

17 August – The algorithmic moderation of the A-level grades resulted in outrage, and the Government abandons the algorithm and revises the grades based totally on teacher assessments.

18 August – Public Health England will be replaced by a new National Institute for Health Protection. The Government appoints Baroness Dido Harding to chair the Institute.

2 September – Plans to ease lockdown in parts of Manchester are deferred as cases spike.

8 September – Cases continue to rise, and new restrictions are to be imposed from 14 September, restricting most social gatherings to the 'rule of 6' maximum.

9 September – The Prime Minister announces that 'Covid Marshalls' will be appointed to help people conform to restrictions, and there will be expanded mass testing in 'project Moonshot'. On 10 September medical experts doubt the efficacy of 'Moonshot'. On 16 September some local authorities doubt the feasibility of 'Covid Marshalls'.

14 September – The lack of tests for teachers worries headteachers in the process of reopening schools.

18 September – Rising infection levels are resulting in the Government considering a short lockdown.

22 September – the Prime Minister announces new restrictions lasting for up to 6 months.

24 September – a new version of the NHS test and trace App is released.

28 September – Anyone refusing to self-isolate as required may be fined up to £10,000.

4 October – As students return to universities the forecast spike in infections occurs across universities, particularly Manchester and Newcastle.

By 10 October there are major concerns over the rate of infection increases in the North.

Source: Derived from Wikipedia¹²³

7.1 Looking back at Paper 7

At the beginning of October when Paper 7 was released, we were still in what could be described as a low intensity stage of the pandemic. August and September had been months when the when the virus was only a problem in certain localities in the north. As we pointed out earlier, the Prime Minister was telling people that they would have it all under control “by Christmas”. People were taking their holidays in August and finding a way to forget about the pandemic - though with warnings ringing in their ears about a possible winter of discontent to come. The epidemiologists, in their normal way, had continued to dampen down expectations indicating with growing emphasis that there would be another rise in the trend of infections.

Government was still going for its hyped straplines – this time the “Moonshot” approach to testing, once again “world class”. Test and trace was now believed to be underway - with Dido Harding now in charge of the entire public health community dealing with the pandemic. By mid-September, however, the mood was darkening as cases were climbing just before the universities were due to open - regardless of warnings from the “science” of the effects of half a million young people moving around the country. Schools had been fully re-opened.

Towards the end of September there was more news of hotspots, chiefly in the old industrial towns and the inner cities of the north. Week by week, steps toward a potential new lockdown were having to be considered. The predicted spikes in the university towns were there for all to see. Hotspots continued to rise in prominence. At this point, only the south east looked to be in line with the optimistic climate espoused by the government. We were on our way to the long predicted second wave.

Paper 7 turned its focus, once again, to the economy and the effects of the pandemic and the lockdowns across different segments of the economy and spaces and of places within it. The retail and hospitality sectors continued to be the most affected, but the paper gave particular prominence to the plight of the arts and cultural industries. The geographical window also revealed that there were new geographies of economic and social deprivation emerging in locations where this had not been the case before the pandemic.

- By September, **restoring the economy** had risen in profile and, although people were warned to be careful, the sense of the government message was that they should go back to work wherever possible (*This advice was rescinded as the second wave moved in*).
- Paper 7 set out the latest data on just how **serious and long term** the recession was likely to be (*Three months on and with new promise by the Prime Minister of an Easter endpoint after more lockdown, the economic situation has worsened*)
- On 24th September, the Rishi Sunak announced his **Winter Economy Plan** (Treasury, 2020b) to subsidise the wages of people in work and replace the furlough scheme at the end of October (*Cue another rapid readjustment when it was discovered that it would not do what was planned*).

¹²³ https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

- More people with the **opportunity to work from home** were increasingly taking it board for the long term and estate agents were picking up on the ex-urban flow. The central cities remained eerily quiet with people still keen to avoid the commute (*The “great return” has not yet materialised*).
- In the background, the new digital technologies, the internet and cloud, AI, robotics, 3D manufacturing and video conferencing were already laying down a path to **new ways of working and of generating revenue**. New opportunities were exploding (*There were new jobs but also jobs were being replaced*)
- The situation remained particularly dire for the **hospitality sector** with forecasts of as many as a million jobs to be lost once the support packages came to an end. In effect, the bulk of the sector was still surviving largely through the contribution from the public purse (*A new open-ended lockdown is now in place with more closures certain to follow*)
- Paper 7 opened a window for the first time on the dire conditions to be found across the **arts , culture, entertainment and events cluster**. Many of those active in it had tended to fall through the net of the Chancellor’s support schemes.
- Jobs for many of the lowest paid in **the traditional shopping** segment of retail were being lost in large numbers as many of the well-known brand name chains began to go into liquidation or at least into major restructuring.
- **Real poverty** – already too high before the pandemic – had expanded dramatically. Redundancies were held back by the furlough scheme and as yet, unemployment was not climbing significantly (*This is still the case thanks to the furlough scheme*)
- The intention remained to **close the furlough scheme** on 31 October - with a cliff edge” to be faced (*As we now know the cliff-edges were moved backwards stepwise - now to April 2021*).
- The government’s own forecasts were indicating that we would be facing (even without a second and third wave and more lockdowns) up to **7 million unemployed** with 50% of them in the younger age groups.
- Paper 7 emphasised the pressing need for some form of **basic income support** – Universal Basic Income (UBI) or Minimum Income Guarantee (MIG) as a nationally adopted and publicly administered scheme (*While this has risen in profile we see no movement from government*).
- All of this served to make the, still active, government slogan of “**levelling up**” a shallow and meaningless discourse facing a massive decline in the national fortunes and, in particular, in the fortunes of all those in society already suffering disadvantage wherever they lived.

The paper concluded, once again, with a plea that the entire benefit system should receive close scrutiny in the light of the circumstances current at the time and for what was already clearly known about the likely situation in the future. It also repeated the argument the severe outcomes from entering the pandemic with high levels of inequality and in particular health inequality tell us a great deal about why the UK had such a poor pandemic record compared with its peers. Looking back from the end of the year, we see little sign that any of these critical lessons has deflected the juggernaut of government policy from its U-turn strewn original pathway.

7.2 Prologue – The context for this paper

In our previous papers we covered the impact on society and economy of the Covid-19 pandemic, the lockdown, and the resulting and ongoing restrictions on mobility and social interaction. We also looked at changing behaviours as a result of the pandemic, ranging from a reluctance to use public transport or go to an office workplace, dramatic shifts towards more online retailing, the move to ‘staycations’, the adoption of social distancing. As the months passed, the government opened the door to greater mobility to reawaken the economy. At first, it encouraged moving back to old mobility behaviours and going back to work, while recommending wearing a mask and washing hands. Then it went into reverse and told us to work at home where we could, required local lockdowns, and put a 10pm curfew on pubs and restaurants.

This was a period of confused policy proposals and rapid U-turns as the virus faded and then reasserted itself - not the least being the about-face move to allow grandparents to undertake informal childcare on September 21 (BBC, 2020c). Testing and track and trace turned out to be the disaster that virtually everybody foresaw. Once better data finally emerged; more “hotspots” were revealed - but initially successful measures to focus on them locally ran into the centralised Pillar 2 testing fiasco (still on-going with “lost” cases now being backfilled, and with a simple oversight that Excel files have a maximum size losing more cases early in October (Kelion, 2020)).

We still wait for local players to have an appropriate role. The schools opened (and then started to close again with in-house infections and testing failures). Businesses began to operate again but found those workers who could, unwilling to take on travel risk and choosing to work from home. The government demand to ‘return to the office’ was immediately discarded when the civil service unions reacted and has now been completely overtaken. Public transport was declared fit for use, but people remain suspicious. Once again, those who can, avoid it.

Half a million students began to migrate to universities during late September to form new high-density groupings of susceptible young people: for example, 20,000 students coming to the city of Durham, where in the city centre some streets are 65-80% houses of student lets (Havery, 2020). As predicted, case clusters emerged rapidly and continue to accelerate. While a university can exert some control within its premises, it has little power over behaviours outside in rental properties (many in already identified hotspot localities). In Manchester and Strathclyde new students were required to isolate in their halls for 14 days, and strictures on socialising for all students were announced across universities. On October 2nd, the University of Northumbria announced that 770 students had tested positive (BBC, 2020h). The story of high and accelerating infection rates in university centres evolves by the day.

The past few months have, then, been a toxic mix of U-turns, the declining credibility of a central government often surprised by entirely predictable events, a loss of trust and endless confusion as to what people are supposed to do. Complex rules, which have been hard to explain for Ministers put up for media interviews and even for the Prime Minister himself¹²⁴, have left the population anxious and uncertain. It has been a shambles. Against this background, the first hints of an emerging recovery have become exceptionally fragile. The truth is dawning that we are going to be in this for a long haul.

¹²⁴ <https://www.legislation.gov.uk/coronavirus>

Consistent with this, some well-informed voices are encouraging us to see the pandemic not as something that will go away - even when a vaccine arrives (McKenna, 2020). Covid-19 is envisaged as just the latest in a continuum of global health challenges that have been emerging for decades but that, up to here, have been geographically contained. The view from this perspective is that we will probably have to learn to 'live with it' (Triggle, 2020), since the virus or one of its many potential successors will be with us for the long run.

While a vaccine as a techno-fix, or some other "world beating" one-shot policy solution, may be attractive as a palliative; it would be naïve to visualise it as the "holy grail" to bring the crisis to an end. If this is the perspective for the future we face, it changes things fundamentally and we should use the catastrophe of the pandemic as an opportunity to think again about the kind of society we and our successors might collectively want to live in – especially facing the over-arching challenge of climate change.

A rational place to start would be by reinstating a sense of immediate concern about global public health, and to consider how the huge advances in epidemiology and disease prevention of the last century could have become overtaken by complacency. Remember that the 'cure' for cholera in the City of London, mapped by John Snow in the 1850s (Begum, 20216), was not just 'fixed' by the "Moonshot" technology of clean water supply systems. It also required action to address what we would now call the "social determinants of health". Poverty, then and now, lays the ground for the existence and transmission of contagious diseases of all kinds.

It is not without significance that since the 1970s - as Picketty (Piketty, 2020) shows in detail - extreme levels of social and spatial inequality became widely tolerated in the advanced nations under the accepted political economic model of the time. We should not be surprised how fast a lethal virus infection took off and made its way into and through societies that had come to tolerate low and precarious incomes, poor housing, restricted access to health care and a clustered geography of what is termed 'multiple deprivation'¹²⁵. All it needed for Covid-19 to take off, was a fully integrated, dynamic, globally linked world of fast air travel and a relative decline in the importance ascribed to public health. What was containable in the 19th Century using street by street "track and trace", is a today a global and local challenge of epic proportions even with the advanced technologies currently available to us.

We have struggled in writing this paper find some firm ground to stand on. The context has been changing by the day. When we first began trying to envisage what might be longer trends in the economy, it was possible to be mildly optimistic as recovery started. But over the weeks, the prospects have darkened. What has changed most is that the time horizon for even a modest recovery has been lengthening. The short term is becoming long term. This is against a picture of unstable and turbulent events and government chaos. We will still, however, be looking in the first part of the paper to read off from the short term some hints about those long-term trends that might tell us about the post-Covid-19 economy. Our frame of reference is employment – which jobs are being lost and which might survive or emerge in the future.

Whereas in past papers we spoke of the 'new normal', we now think in terms of; i) the 'journey towards coping' and ii) the 'journey toward a new order'. While the idea of some 'new normal' implies a describable end-condition, we see no such thing. We are facing a process in motion – one of travelling but not arriving. This fits with the idea of a fast-evolving, complex, dynamic system in a constant process of becoming. At the very least such a perspective stops us swallowing the notion of some ideal state that sound adherence to the rules of the market will lead us towards. Until there is a realisation of the need to change some of the fundamentals of the way we live, firefighting outbreaks looks as if it might sadly become the norm.

¹²⁵ <https://maps.cdrc.ac.uk/#/geodemographics/imde2019/default/BTTTTFT/10/-0.1500/51.5200/>

In the second part of the paper, we follow on from employment to show how the recession will exaggerate trends in the labour market that deepen and extend multiple disadvantage and poverty. For the world of the future, indifference to extreme, spatially localised economic and social inequality is going to have to change. Perhaps this might be because there is a fundamental change in general views about social justice. More likely, however, it will come from pure pragmatism. Our neighbours' health (globally as well as locally) – as we now see every day - can have a profound effect on us and our life opportunities.

Whatever the stimulus, there is an urgent need for better housing, better financial security, better access to health care, better education, and opportunity for those disadvantaged under our present arrangements. Such a transformation of economy and society will, of course, be a contested process, with a struggle between winners and losers, the powerful and the powerless. An important starting point might be to realise that Covid-19 offers an opportunity inclusively to *co-design* any new paradigm and not just to let the prophets of economic efficiency prioritise market forces to take us where they will.

In the weeks of September 7th, 14th and 22nd, we found ourselves going back into UK “lockdown by stages” with strict limits on mobility covering whole sub-regions in the West Midlands, the North East and Lancashire and around 13 million people living under restrictions. Trying to write a paper looking beyond the virus and the chaotic moves to deal with it is like a scary fairground ride – mostly in the dark with regular disturbing images thrown in to scare you. We will do our best to shine a light on what we see might coming towards us. We are probably going to have to acknowledge that the legacy of the past may turn out to be a poor guide to the future.

7.3 The Largest Recession on Record?

7.3.1 The prospectus in August 2020

The prospects for recovery looked poor at the end of August, with some forecasts predicting, for example, a huge £22 billion loss just in tourism revenue during 2020 (BBC, 2020f). By August 11 nearly 750,000 jobs had already been lost across the UK economy (Strauss, 2020). In June and July, the early notices of forthcoming redundancy required by Employment Law saw 300,000 jobs listed for closure later. By the middle of August, the Office for National Statistics (ONS) had declared; “*It is clear that the UK is in the largest recession on record*” (AFP, 2020). Output (GDP) had contracted by more than 20% in just two quarters. There was a small bounce back in the second quarter as lockdown was partially eased and pent-up demand in the retail sector produced a sharp upward shift.

Overall, however, the economy had seen a massive hit – particularly to the retail and hospitality and the travel and tourism sectors (BBC, 2020e, Subramanian, 2020). At this point, the Bank of England was forecasting an economic contraction of 9.5 percent and an unemployment rate of 7.5 percent by the end of the year rising to as high as 9 percent in 2021 – describing this as “*the worst recession for 300 years*” (Giles, 2020).

The Bank was, however, standing ready with a massive expansion of Quantitative Easing (QE) and was hoping for a faster recovery than had been the case with the 2011 recession. The Office for Budget Responsibility (OBR¹²⁶) projected the numbers of the unemployed to be in the range of 3-4 million (but with the possibility of 7 million as the worst-case estimate) over 2020, 2021 and 2022. The UK represented the worst performer among the G7 countries (Eaton, 2020). The OECD forecast was that unemployment will

¹²⁶ <https://obr.uk/>

reach a near-record 11.7% by the end of 2020 (Farrell, 2020). That would rise to 14.8% should there be a second wave of Covid-19, meaning more than one in seven workers will be left without a job¹²⁷.

7.3.2 September 2020: The prospects darken

At the beginning of September, spirits were still beginning to rise. There had been a recovery from the disaster of a 20% loss of output in April. The following quarter had seen a fall of only -7.6 percent in the three months to July. The Chancellor's "Eat out to Help Out" scheme and the loosening of lockdown rules had seen activity expand and output improve. By the end of the first week in September, however, the case count for the virus had begun to grow again. A week later, on fears of an imminent second wave, the government went into action to declare limited lockdowns in hotspot areas. In quick succession, new and hard to interpret rules were coming back to restrict the movement and interaction of people in the cities and those sub-regions with rising case counts.

Seven days later, the restrictive rules expanded again to a current situation where half of the population of northern England and two-thirds of the population of Wales are under some form of containment¹²⁸. The virus was, once again, moving faster than the government's efforts to contain it. We are now in a position where there is a widespread expectation of some form of new national lockdown and panic buying has returned to the supermarkets.

For the recovery of the economy, this renewed expectation of some future closedown is devastating. It comes as we enter the last 100 days of the end of the Brexit negotiations. Uncertainty is as extreme for business as it is for the community at large. A bulletin released by the Society for Motor Manufacturers and Traders (SMMT) offered a powerful perspective on conditions in a sector where recovery was quick to take off but which is now extremely concerned about its post-Brexit future:

- *"UK car production declined -44.6% in August with 51,039 units rolling off factory lines.*
- *Production so far this year is down -40.2% with a loss of 348,821 units worth more than £9.5bn to UK car makers."* (Guardian, 2020)

Late in September we were told; *"Hospitality has been hit particularly hard by the pandemic and multiple trade bodies had warned earlier this week that a quarter of the UK's 100,000 pubs, bars and restaurants could close, with the loss of 675,000 jobs, unless they were given sector-specific support"* (Davies, 2020). Another report forecast up to 900,000 further job losses once the government support measures were relaxed (McAllister, 2020). The Bank of England forecast for unemployment before the latest round of restriction was for it to rise from its current 4.1% to 7.5% by the end of the year. There is now a concern that it will rise as high as 10 percent under the conditions now facing the country with over 3 million out of work.

And then there is Brexit. The Credit rating agency S&P Global presented its economic forecast on 24th September, cutting its economic growth forecasts for the UK and saying that the country's economy was now likely to slump by almost 10% this year (Ignacio, 2020). S&P noted that *"a hard Brexit leading to new import and export tariffs, as well as non-tariff trade barriers"* would add another layer of challenge for European companies and be *"especially detrimental for the UK economy"* (REUTERS, 2020). Whatever the "bounce" forecast for 2021, it is clear that two years of massive financial losses are not going to be recovered quickly.

¹²⁷ <https://news.sky.com/story/coronavirus-crisis-where-jobs-have-been-lost-across-the-uk-12029604>

¹²⁸ <https://www.gov.uk/government/collections/local-restrictions-areas-with-an-outbreak-of-coronavirus-covid-19>

7.3.3 An economic and a social crisis

By any standard, the UK finds itself in the first stage of a damaging economic and social crisis, not just in relation to Covid-19, but facing the unknown threat to arrive from a potential “no-deal” Brexit (Ainger et al., 2020). Some commentators suggest that in the short run this will see the economy lose up to a quarter of its productive potential in addition to that coming from the pandemic. Early talk of a fast and V-shaped recovery is long behind us. Most commentators rightly point to a slow emergence from the recession (Elliott, 2020a). The common early view that the virus would still be active amongst us until at least the Spring of 2021 is beginning to give way to the prospect of a much longer journey. Until more is known about the outfall of Brexit, the shape of the recovery will be highly uncertain and investors will be holding back on their plans.

It is clear, however, that the number of available jobs in the UK (and indeed globally (Jones, 2020)) is going to be significantly reduced in absolute terms over at least the next three years. There will not be enough jobs available to make new offers to a high proportion of the young people leaving school or college. Indeed, the poor job prospects may well have encouraged school leavers to go into university wherever possible, with many universities further oversubscribed after the examination grade fiasco (UCAS, 2020).

Without a fundamental shift in the philosophical basis of policy, it will be difficult to address the levels of inequality that had built up in the country even when the number of people in employment was at an all-time high. Waiting for a market-based expansion to produce positive job growth is not going to be anywhere near sufficient to cover even the most recent job losses. This would spell disaster for an unacceptably large share of the population. There is a sense that government is as slow to grasp the extremity of the social crisis building up in front of us as it was in dealing with the early stages of Covid-19.

7.3.4 Benefit claims rising sharply

In the two weeks prior to January 2020, some 94,000 unemployment benefit claims had been made in the UK. By the two weeks before 31st March the claims figure had risen by a factor of 10 to 950,000¹²⁹. Many of these new claimants had no prior experience of losing their job and were thrust into job search (JSA) and Universal Credit for the first time. In January 2020 there were 2,453,716 households receiving Universal Credit. By May 2020 (the latest statistics) the number was 4,239,779¹³⁰. That increase was while the furlough support scheme was fully operational.

The workers for whom severance came quickly and with no cost to the employer were those already in the precarious labour market where contract terms carried no guarantees beyond the work already in hand. One of the attractive features of the non-standard, zero-hours contract for employers is that hiring and firing can be matched flexibly and virtually instantaneously to demand shifts. This is likely to constitute a group of people for whom the planned withdrawal of the £20-a-week emergency boost to tax credits will see average incomes fall by £600. This is, however, an average that includes pensioners and others who might be less powerfully affected. In Scotland, the south of England and the East Midlands, around one in four non-pensioner households are set to lose over £1,000. This would rise to one in three in Northern Ireland, Wales, West Midlands, and the North of England (Elliott, 2020b).

Around a third of all benefit claimants are young people. Another hard-hit group is the over-50s, effectively forced into early retirement to live on benefits. In May 2019, there were 206,502 over-50s on Universal Credit. By March of 2020, the number had risen to 304,379 and by May the number had more than tripled

¹²⁹ <https://www.statista.com/statistics/1107124/coronavirus-uk-benefit-claims/>

¹³⁰ <https://stat-xplore.dwp.gov.uk/webapi/jsf/tableView/tableView.xhtml>

over the past year to 659,649 (Bentley and Gibbons, 2020). Many have had no prior experience of losing their job and will be thrust into job search and Universal Credit for the first time.

7.3.5 Real poverty grows

To see how the pandemic has added to levels of poverty in the UK, we have to turn to the *Social Metrics Commission* (SMC, 2020), since the UK government no longer publishes data on poverty. In 2018-19, around 14.4 million people in the UK were living in poverty. This was, of course, at a time when unemployment was low and the rate of employment was high. About 4.5 million people (7%) were in deep poverty, and 7.1 million people (11%) were in persistent poverty. This means that they had lived below the breadline for at least two of the last three years (Butler, 2020). Around 4.5 million children were estimated to be living in poor households at that time. Among the BAME population, it was suggested that about half were living in poverty. That sets a pre-Covid-19 baseline against which the added impact of today's recession and job loss should be measured.

The latest data from the Social Metrics Commission confirms that the largest employment impacts from the pandemic have been felt by those already in the deepest levels of poverty. Two in three of those employed prior to the crisis *but still in deep poverty*, had experienced some kind of negative job change (reduced hours or earnings, been furloughed or lost their job). This compares to one in three (35%) of those who were employed but not in poverty. Around 20% of those previously employed people experiencing deep poverty were reported to have lost their jobs.

For those still in work, hours or pay have been reduced as a result of the Covid-19 crisis. There is a real danger that, with the pandemic, both the incidence and the severity of poverty could increase to extreme levels. As we have pointed out before in our fourth paper, the map of deaths and cases from the virus has a strong visual correlation with that for multiple deprivation. It is hardly a surprise to see that *the new hotspots for Covid-19 contagion closely match the map of relative and absolute poverty in the UK*.

7.3.6 The Chancellor's "Plan for Jobs" and "Job Support Scheme"

In response to this evolving jobs crisis, the government has moved twice. Recognising the jobs situation, the aim was to lessen the immediate damage. On 8th July 2020, Rishi Sunak announced his "Plan for Jobs" to offset the effects of the lockdown and the pandemic on employment (Treasury, 2020a). This was presented as the second phase of a wider plan to "support the recovery". The first was a planned "*£160 billion support package, which included £49 billion of extra funding for the country's vital public services including the NHS*". The furlough scheme as it was called, was to pay up to 80 percent of the wages of nearly 12 million people and to support over a million businesses through grants, loans and rates cuts. There were also what were termed "shovel-ready projects" and plans for "greening our infrastructure". Later, an extended apprenticeship scheme was added to encourage employers to take on more young people (Kickstart¹³¹). The details of the scheme are set out in section 7 of this chapter.

Impressive though such a programme was, three critical questions immediately arose. The first, given the issues discussed above, was whether the considerable sum of money announced was going to be enough to prevent job losses on the scale projected. Since unemployment remained relatively low (4.1%) over the lockdown period and redundancies were held back, the plan did work well for the short term it was designed for. For what we have just seen as the projected path for unemployment ("of the order of 2-3 million" Sunak himself suggests), the concern that it needed a much longer time horizon than the end of October was well

¹³¹ <https://kickstartjobs.uk/> and <https://www.gov.uk/government/collections/kickstart-scheme>

founded. A huge lobby of opinion moved to press for it to be extended – but without success¹³². On 5th October we heard of yet another piecemeal replacement initiative called JETS (Job Entry Targeted Support Scheme) for externally provided “job coaching” for the unemployed (Leishman and Jones, 2020).

A second question was how comprehensive the cover would be. We have now learned that at least 300,000 people for various reasons were unable to make use of the Chancellor’s scheme. The third issue was to how quickly it could work given the speed with which jobs were being lost and benefit claims were rising. Once again, there was some success here, with the scheme working quickly though the employers in a distributed way. As recovery began to emerge and the construction and manufacturing sectors began to take their people back and withdraw from the scheme, there was some hope that “bridging” this way might work. But the ever-present threat was of a “cliff edge” to come at the end of October. With the prospect of a second wave and new lockdowns, hopes of an early end to the crisis were dashed and this saw the Chancellor move again.

On 24th September, the Rishi Sunak announced his Winter Economy Plan (Treasury, 2020b) to subsidise the wages of people in work and replace the furlough scheme at the end of October. Under the new scheme, businesses have the option of keeping employees in a job on shorter hours to avoid making them redundant. The Resolution Foundation has offered a powerful critique. It points out that: “*it would cost a firm £1,500 to employ one full-time worker on £17,000, but more than £2,000 a month to employ two half-time workers on the same full-time equivalent salary*” (Resolution, 2020). It would be cheaper to have fewer workers on full-time contracts than more workers part-time..

The Institute for Employment Studies was concerned that the latest package; “*falls short of what is needed to prevent unemployment spiralling upwards during the winter*” (Inman, 2020b). A key feature of the entire bundle of government expenditure to create jobs is the assumption that it will be *private sector employers* that will be the active agents (as with track and trace). The schemes have been largely well received but an obvious critique is that they will surely not be anywhere near enough to deal with the threat of three million unemployed.

There is no sign that the government will countenance a scheme under the banner of what, in the EU context, would be called Active Labour Market Policy¹³³ (ALMP). During the high unemployment phases of the 1970s and 1980s the European Union and Member States moved to support the unemployed workforce by a raft of *direct measures* to introduce training, community-based activities and schemes to assist the young and the disabled. In the UK, examples also existed for the earlier period in the Youth Training Scheme (YTS) and the Youth Opportunities Programme (YOP). Both received a good deal of criticism, but they offered lessons to be learned. It will not be sufficient to sit back with the Job Support Scheme in play and just let things play out. The cost to society and perhaps to public order will simply be too great.

¹³² On 5th October we hear about yet another piecemeal replacement initiative called JETS (Job Entry Targeted Support Scheme) for externally provided “job coaching” for the unemployed LEISHMAN, F. & JONES, A. 2020. *Job Entry Targeted Support: New employment scheme to help those 'out of work' because of Covid-19*. Cambridgeshire Alive. Published October 5. Available: <https://www.cambridge-news.co.uk/news/uk-world-news/government-job-scheme-employment-coronavirus-19049108>. [Accessed October 5 2020]..

¹³³ <https://www.oecd.org/employment/activation.htm>

7.4 Economic Shock: Cascading Effects

7.4.1 Time space compression gives way to time space dispersion: Key areas of the economy facing economic shock

In the background as the recession made its way through the economy, Covid-19 was also bringing about a profound shift for people in terms of the space and time aspects of their lives. What we can call *time space compression* was the essence of things at the beginning of 2020. We pressed together on trains, tubes and in cars at “rush hour”. We occupied the rent-efficient spaces in busy offices from “nine to five”. We squeezed through the gates of football grounds at “kick-off time”. We booked tables in busy restaurants at “lunchtime”. We crowded into airport check-in desks at “flight time”. The virus changed all that. Those businesses that measured their success in terms of passenger load factors, seat occupancy ratios, customer footfall, number of restaurant “covers” and so on were devastated as a public health crisis turned the *time space compressed* world inside out.

Beyond the emergency stop that was lockdown, *time space dispersion* became the new requirement. Coming together in numbers at designated places and times was heavily proscribed. We know the rest – offices and trains emptied, venues closed, events were cancelled, sports grounds rang hollow and shops stumbled on with limited footfall. This represented a shock of some enormity – long established business models went out of the window and with them the revenue streams and legacy data that management accounts could bank on to determine their competitive weight in the marketplace.

But on the old cliché that “every crisis presents an opportunity”; beyond that shock came the first stages of response. Just how should a business find a way to go forward in a world of *time space dispersion*? When the pandemic hit, we were already on a steady pathway toward another revolution – the digital transformation or the Fourth Industrial Revolution. The new digital technologies, the internet and cloud, AI, robotics, 3D manufacturing and video conferencing were already laying down a path to new ways of working and of generating revenue. New opportunities were exploding. Ways of using them were already beginning to emerge - both to add to efficiency and lower wage costs and to open up entirely new markets and ways to find and tap them.

In this section we need to put some flesh on the bones of the aggregate data of the second paper. For doing this, we found the established idea of sectors in the Standard Industrial Classification too limiting¹³⁴. We want to focus on those areas of the economy where *time space transformation* has had its most powerful effects - where the shock of the pandemic worked its way through connected multipliers to cascade out beyond the core to other business, people and places. We want to see what hints we can gather about how the crisis and the response to it might reconstitute the world of business and employment for the longer run. In doing so we have to risk cutting across accepted sector definitions and standard data and depend more on publicised headline events. We make no attempt to be comprehensive and just focus on three activity groups¹³⁵:

¹³⁴ Before his Winter Plan statement, the Chancellor was being pressed from many quarters to take a “sectoral” approach to his proposed job support measures. His response was that sectors were too difficult to define. For our purposes in writing the next section of the paper, we agree with him.

¹³⁵ We have a problem with “hospitality” - the hotel and accommodation industry – which the Collins dictionary defines as follows: “*The food and hospitality industry is about providing food, drink and accommodation. It also involves entertainment, fitness and leisure*”. For our purposes, we want to associate part of it with the airlines and airports group. The same applies to that part of tourism associated with airlines, airports, and international travel.

- Airlines, airports, travel and associated activities;
- Consumer retail, food supply, household goods and associated logistics;
- Arts, culture, entertainment, performance and events, tourism and associated activities

To provide material to link our story to the second theme of the paper, we want to emphasise that a substantial proportion of the associated jobs in those groups are to be found in the lower paid and lower skilled segment of the occupational spectrum. We are as interested, for example, in conditions for the “quarter of Slough’s working-age population” that is “employed either directly in aviation or indirectly through industries such as logistics and hospitality” as we are in the pilots and crew in the airline sector (Ford, 2020). We want to see the effects on places like Crawley or Luton as unanticipated patterns of job loss appear (Harris, 2020).

7.4.2 The airline, airport, travel, and tourism group of activities

For this complex and highly integrated set of activities, there had been no prior warning of the devastation to come. Growth seemed assured. The investment plans of airlines, airports (with planned new runways and expanded terminals), aircraft manufacturers, hotels and tourist operators were shaped for long term steady growth. Some changes were in progress. The, decades long, development of the hub and spoke network was beginning to shift in favour of direct point-to-point travel with smaller fuel-efficient aircraft. This was, like so much of the change before the pandemic, making its way slowly into practice. The pressure to be more fuel efficient and environmentally sensitive was drawing the major players into agreements to limit emissions. This was “normal” evolution - with the new technologies opening a variety of new possibilities and their adoption taking time.

The shock of Covid-19 on the whole system was sudden, dramatic and is still very much ongoing (Anon, 2020a). Something of the sheer scale of the impact on the airline industry can be grasped from a dedicated Wikipedia page listing around 30 affected airlines¹³⁶. The scale is quite devastating in terms of bankruptcies and service reductions. In addition, aircraft manufacturers such as Airbus are reported as being in financial peril (Anon, 2020b). All airlines have grounded aircraft, made staff redundant and attempted to shore up their finances. British Airways is continually having to reduce its staff headcount (Armitage, 2020). Virgin Atlantic, having had to negotiate a rescue package, has shed over 4,000 jobs (Caswell, 2020).

The earlier questions about the future for airport hubs have quickly turned into real actions. Virgin (BBC, 2020g) and British Airways have both moved to close their Gatwick hubs. Specialist airports have struggled. London City Airport has announced that it is shedding one third of its employees (Whitehead, 2020). Major airports like Heathrow have also seen substantial job losses. Regional airports, such as Newcastle¹³⁷ and Manchester are responding in the same way with significant redundancies.

Looking outwards to the connections in the linked international travel and tourism industry; Hays Travel announced large redundancy programmes at the start of August. STA travel joined them in closing out jobs in late August (Murphy, 2020). These are just the headlines of closures, redundancies and job losses in an industry cluster that is under extreme pressure (BA confirmed on 16th September that it is in a struggle to survive). Constantly changing decisions at country level about whether returning travellers should quarantine, have truncated the hopes for a quick recovery and set back budget airlines - just as Ryanair (Hayhurst, 2020), EasyJet and others were starting to take to the air again.

¹³⁶ https://en.wikipedia.org/wiki/Impact_of_the_Covid-19_pandemic_on_airlines

¹³⁷ <https://www.airportwatch.org.uk/uk-airports/newcastle-airport/newcastle-airport-news/>

Upstream of these events at the industrial end of the production complex, a restructured supply chain for aero engine servicing and repair by BA and other airlines in July and August produced losses in the South Wales aerospace cluster (Bellis, 2020). GE aerospace closed its factory near Caerphilly (Harris, 2020). Other losses affected Rolls Royce in Derby and Airbus in Chester. Rolls Royce announced the closure of its Barnoldswick plant in Lancashire with the loss of 350 jobs. Perhaps more significant than this, however, was the indication that the company will be moving a significant part of its engine components manufacture to Singapore. For the longer run, all airlines are struggling to forecast what consumer travel behaviour will look like on the other side of the pandemic. Established booking and pricing models based on legacy data from the past are no longer a guide to an uncertain future¹³⁸.

While airport-based Covid-19 testing is scheduled to begin soon (Wilson, 2020) to help re-open routes, there is every indication that job losses will continue into the long term. The airline industry generally is working on 2024 as the first possible date by which passenger numbers might be expected to recover to pre-virus levels. It is likely that some premium travel will be restored more quickly but there is great uncertainty about the shape of the holiday trade. The threat of a continuing risk from the virus as well as the impact of recession on disposable incomes makes consistent forward planning impossible. For the budget airlines, the position of the “boomer” population that chose to holiday widely and often is a key part of any forward calculation. Virus risk will play more heavily than disposable income here.

A critical issue is how far business travel will adapt - as the new communication technologies put in place during the crisis continue to redefine the meaning of space and the need for face to face contact. Will a structural shift have taken place that will change the whole basis for how international business is conducted? Will “working from home” have a second meaning, one that envisages people not travelling as much out-of-country to transact business? Facing such a level of uncertainty, one thing that seems already clear is that *airline consolidation* is inevitable; with fewer, larger carriers able to take the hit and continue going forward. This has already begun with many small airlines disappearing in the US and Europe. Some air travel may return strongly as a premium product provided by the elite airlines - but even the premium trans-Atlantic routes (worth \$9 billion a year) are under threat (Georgiadis and Bushey, 2020) until a testing solution is in place.

As pointed out earlier, this is about more than just the airlines. They are a key part of a whole assemblage of elements that make up an integrated cluster of activities and provide jobs and incomes spanning the full range from the most basic ones in airport retail and off-site food preparation to the most highly qualified pilots, engineers and systems designers. Knowing about losses among airlines, travel agencies and airport hotel groups from headline events tells us only a small part of the story.

Integral to the whole economic complex are job multipliers that spin out upstream to engine and avionics manufacture and maintenance and downstream to a wide variety of directly procured associated activities (ramp services, baggage handling etc.) and associated activities (coach services, airport catering). A classic example of this is the announcement on 22nd September by the pub chain Wetherspoons that almost half of its *1000 workers* employed at UK airports will lose their jobs (McLoughlin, 2020). The much lauded job multiplier effects of airport development can work both ways - as the residents of places like Slough, Crawley and Luton are currently finding out.

If the wider employment multipliers are added in, we are talking about the equivalent of “city-scale” job networks for the largest airports (Heathrow, Gatwick and Manchester, for example) with tens of thousands of connected jobs. Numerically, the majority of those employed are at the lower end of the pay/skill scale. We see “shock” headlines of Heathrow shedding 1100 jobs and Gatwick 1400 - but these just skim the

¹³⁸ https://www.youtube.com/watch?v=H_akzwzghWQ

surface. In what we will be turning to later in this chapter, it is essential to understand that the damage from closure and redundancy will run far wider economically and socially than can be captured by a sector label like air travel and tourism. Impossible accurately to count, considerable job losses are building among that pool of people at the lower end of the pay and income scale already struggling to find work— many of them living in relatively expensive housing environments. We will see this again later when we describe the new places being added to the list of local areas in difficulty.

7.4.3 Consumer retail, food supply, household goods and associated logistics;

As with the air travel and tourism group of activities just described, the consumer retail, food supply, household goods and associated industries cluster of activities represents a dense network of interconnected businesses and job opportunities. In this case, change through the new technologies was more prominently underway before the pandemic. But, once again, the crisis provoked an immediate acceleration. The movement to online shopping was already happening and the high streets were already losing footfall. As before, there were some high-profile closure and redundancy events as the virus and lockdown hit. On August 18, Marks and Spencer announced that it was “*cutting 7,000 jobs over the next three months across its stores and management. It said the coronavirus pandemic had made it clear there had been a “material shift in trade”*” (BBC, 2020j). This came alongside suppliers like DW Sports, Debenhams and John Lewis and more recently H&M, adding to a long list of those either calling in the liquidators or significantly shrinking their outlets and workforce.

From the list we set out in Paper 5, Intu, the shopping mall owner, which had signalled there were problems, finally succumbed. And, in business, there is always an upside for someone else’s downsides, since successful companies need accountants, as do failed ones (Clarence-Smith, 2020). Looking at the overall scale of change, a recent analysis by the *Centre for Retail Research*¹³⁹ (8th September) reported that 125,000 retail jobs had already been lost and 13,867 shops closed in the first eight months of 2020.

The hospitality sector has been an early and continuing casualty. The decline has been relentless with a recent survey showing that revenues fell by two-thirds between June and the end of September (Inman, 2020a). Releasing lockdown and the arrival of government subsidies to “Eat Out to Help Out” saw a brief upward shift but this petered out as the scheme came to an end after being massively oversubscribed to the tune of 100 million meals (BBC, 2020i). Pizza Express, with 73 store closures and 1,100 jobs lost (Gray, 2020), has recently added its name to the list of high-profile retrenchments that we reported in the fifth paper (Chapter 5 here). Inevitably, the recent arrival of the 10.00 pm curfew across so much of the country outside the south east has had a devastating effect on small pubs and restaurants already in difficulty – with claims that the north is being “levelled down” and demands for additional support (Milne, 2020).

For food suppliers linked to the offices of the city centres things have been particularly desperate. *Pret a Manger* has announced a move to shed over 2,800 workers and close half of its outlets (Sky, 2020). Much has been written about the fundamental business model re-think by *Pret a Manger* to move away from a city centre focus where Pano Christou told Sky News: “*I think customer behaviour is going to change for good.*” (Sky, 2020). Most businesses across the entire hospitality sector are carrying significant losses on their balance sheets and the winter season will probably see a rising toll of closures. Many will not reach the headlines but their disappearance will provoke widespread job losses.

Seaside towns will be particularly hard hit and it is no surprise to see that Blackpool currently has the highest rate of unemployment in the country - even before the winter begins. Overall, the combined retail and hospitality sector saw a loss of 11 percent of its GVA between April and June – the largest of all the UK

¹³⁹ <https://www.retailresearch.org/>

sectors. A recent observation from the owner of Next indicates that worse may be to come; “*hundreds of thousands of traditional retail jobs may not survive in the wake of the coronavirus crisis*” (Jack, 2020). We can also see the beginning of what may be a stream of high profile closures in the hotel industry as September 22 saw 6,000 jobs at risk in the Whitbread Group owner of the Premier Inn chain (Ascher, 2020).

But there has been an upside. Tesco, for example, has announced that it plans to create 16,000 new “permanent” jobs (BBC, 2020m) and the Co-op that it is: “*opening 50 new stores and creating 1,000 new jobs this year. The new roles come on top of the 1,000 posts added during lockdown as demand from shoppers increased*” (BBC, 2020b). Most recently, Aldi (29th September) has announced the opening of new stores and the creation of 4,000 jobs. Amazon reports that it is about to open three new fulfilment centres in the North East and Nottingham with 7,000 new jobs. It is revealing that these part-time jobs are described as being “permanent” and “paid at £9 an hour” (BBC, 2020a). Significantly, for a potential future of industry consolidation, Amazon now sees an opportunity to move into food delivery. The shape of demand is shifting substantially with a surge in the in-store purchasing of DIY goods and a sharp fall for in-store clothes purchases (BBC, 2020o).

The shift to online represents a radical change in the type of tasks and the location of work in the retail sector. It represents one of those profound changes that we will expect to become established for the future as an industry-wide transformation of the consumer offer is facilitated by the possibilities of the new technology. New dis-intermediated internet options have seen consumers dramatically change what they buy, and how they buy (“*M&S said total sales in its hard-hit clothing and home arm plunged 29.9% in the eight weeks since shops reopened, with store sales tumbling 47.9% and online surging 39.2%*” (BBC, 2020j)) as online purchasing accelerates rapidly (Smithers, 2020). It offers a clear example of *space time dispersion*.

When it comes to employment, the occupational profile for retail and hospitality is heavily oriented toward relatively low wages and high flexibility as part of contractual terms. Part-time working is very much a feature of the standard task structure. This recommends itself to some workers where it fits in with their home life or career stage. Those with caring and family responsibilities and young people are highly represented in the workforce. The expectation would be that those closures and job losses we have just outlined will have a particular gender, demographic and locational incidence. This will also be true of the new jobs on offer. The questions are; “how many jobs overall?”, “on what sorts of terms and conditions?” and “where across the micro-geography of the country will the new jobs to located?”.

Moving the bulk of the jobs into out of town “fulfilment centres” and tasks toward the drivers who service them will fundamentally change the pattern of employment opportunity. The reaction from retail and hospitality to the Chancellor’s Job Support Scheme was generally negative, since the bulk of the most threatened businesses are small and they see no benefit from it. For the larger players, however, the scope to create “viable jobs” and use the scheme may be more attractive. A comprehensive re-shaping of the profile of employment is inevitable. The downside will be focussed on the current worker cohort and the upside on new hires.

Geographically, retail and hospitality is an “everywhere” activity, spanning corner shops, high streets and shopping centres, high end city centre and designer outlets. Alongside them is dispersed warehousing and the logistics activities that service the movement of goods. Losses and gains in employment will have a widespread and differential spatial impact across the country as a whole. This will play out from the cores of the major cities and shopping malls through town centres to the local village convenience shop. For the distribution hubs for online, a national pattern of motorway-based nodes, already coming strongly into place before the crisis, will see a rapid expansion. We are looking at a new geography, the shape of which is still emerging. What was slowly evolving before the pandemic has now shifted into high gear. The debate is on

and too early yet to call. Cities and towns at all levels in the urban hierarchy are probably going to look significantly different in the next 5-10 years.

7.4.4 Arts, culture, entertainment, performance and events, tourism and associated activities

The group of activities and job opportunities across this set is enormous. It is just too broad to handle in anything more than sketch form. It belongs to a wide generic category called the *Creative Industries* that contributed £101.5 billion in value to the UK economy in 2017. The group includes everything from: advertising and marketing, architecture, crafts, design and fashion; through film, TV, video, radio and photography, IT, software and computer services, publishing, museums, galleries and libraries; music, performing; to visual arts to exhibitions, games and theatre.

Like the air travel industry and retail and hospitality that we have just examined, the shock of the pandemic to those involved has been sudden and horrendous. The interconnections in this broad grouping are significant. Venues need performances. Performances need people, but enough to make a profit. Hence the decision to delay the release of the blockbuster new James Bond movie led to the closure of Cineworld¹⁴⁰ cinemas globally early in October – insufficient audiences for the films they could show made it economically unviable to remain open and 45,000 people have lost their jobs (Wearden, 2020a).

We are dealing in this “sector” (one can see the Chancellor’s difficulty with definitions) with a complex, integrated hierarchy of elements under a broad banner. Pyramidal in shape - narrow at the top and broad at the bottom – might be a way to describe it. Across the wide variety of elements present within it, different pressures and possibilities will play out post-Covid-19. The “old” model of *time space compression* is currently suspended - but this could be the opening to a revolution in form. Opening the door to a new, widely distributed and digitally served clientele for a *time space dispersed* marketplace will be a locus for innovation. This is already with us, of course, through the major media channels, network providers and streaming services. But the issue of the moment is the mayhem created by the shock of the pandemic.

The first significant closures of institutions in the group came as early as 13 March with closure of the Wellcome Collection, the South London Gallery, the Institute of Contemporary Arts, the Photographers' Gallery and Amgueddfa Cymru¹⁴¹. Soon to follow were events such as the Edinburgh International Book Festival and on March 16 the enforced closure (under the Covid-19 Legislation) of theatres across the UK. There have been some attempts at re-opening, but the strict requirements on social spacing mean that capacity is reduced to about 15-20% of original, rendering the venues unprofitable. This is a group of activities is estimated to employ in excess of 290,000 people. Closure is producing a scale of job loss more than twice that reported above for the retail and hospitality sector. If the vast number of less prestigious performance venues for theatre and music were to be added, the “hard to count” scale of job losses is undoubtedly very considerable.

The Creative Industries Federation (CIF) worries about a ‘cultural wasteland’ emerging from closures and redundancies (Bakare, 2020). The Financial Times reports that “*Revenues are forecast to drop by £74bn in 2020 — a 30 per cent fall — while job losses are predicted to hit more than 400,000, according to research by the consultancy Oxford Economics*” (Pickford, 2020). The Government did announce in July a “£1.57bn support package to help protect the futures of UK theatres, galleries, museums and other cultural venues”

¹⁴⁰ <https://www.cineworld.co.uk/static/en/uk/blog/cineworld-cinemas-closure-faq-coronavirus-covid-19>

¹⁴¹ https://en.wikipedia.org/wiki/Impact_of_the_Covid-19_pandemic_on_the_arts_and_cultural_heritage

(BBC, 2020d). However, the proposed re-opening of some cultural venues with limited (socially distanced) audiences has now been put on hold with the September 22 clampdown.

Trying to survive downstream of the now abandoned events and performances are large numbers of agencies (Lebrecht, 2020); technical support companies; creative teams (writers, designers) and many other backstage participants – many of them on non-permanent contracts. Alongside them are external companies handling sales, security, catering, and cleaning. Going wider still, as in the airline and tourism example, are currently negative income and employment multipliers cascading down to those hotel, tourism and hospitality activities¹⁴² locally that depend on the creative industries for their revenue and survival.

As we have seen across the two groups of activities we looked at earlier, technological change was already working its way across all the elements of the creative industries. The UK was already highly technically advanced in animation, creative design and gaming - regarded as the industry leader in many specialist areas. Advanced audio and video techniques were already in use for supporting and streaming performances. Cinemas had moved to extend their scope, bringing the performances of the Metropolitan Opera¹⁴³ in New York to high-quality sound and viewing facilities locally. This served to grow new audiences and no doubt also increased the desire for seeing live performance should the producers survive the crisis. For broad global discussions see (OECD, 2020) and (UNESCO, 2020).

In a transformation already well under way before the shock of the virus, the major media channels, network providers and streaming services of products digitally were serving a remote and global audience. The arrival of the pandemic made this a highly profitable marketplace for the handful of key players since it provided an obvious escape from the onerous constraints of national Covid-19 sanctions. This is not only going on in the performance field. There are virtual reality tours through the National Gallery¹⁴⁴. There are any number of online tutorials about the Mona Lisa¹⁴⁵ - obviating the need to visit the *congested* Louvre in Paris and wait for your limited *timeslot* to view it in person¹⁴⁶. Virtual reality will further open the door to new experiences in this form and these features are here to stay.

An issue we have raised elsewhere may serve as a guide to what the future may hold in this case. *Industry consolidation* will probably feature highly. The strong will survive in industry that is uniquely disaggregated and heavily populated by small enterprises and sole traders. This will raise concerns about retaining the very creativity and innovation that gives the grouping its title. The loss of the seedbed could have very far-reaching consequences. A key issue going forward will, then, be less about mode of delivery as about the preservation of quality content and creativity in a more oligopolistic format. How will the potential loss of talent and creativity at the bottom of the pyramid be offset and rebuilt?

Inequality in the distribution of the positives and negatives of outcomes will, then, be the name of the game for this complex cluster of activities just as it has been everywhere we have looked. The elite operators with scale and finance and those able to make best use of the digital technologies will best be able to survive. For the broad base of the sector pyramid where new talent is nurtured and where innovation takes place, already, lack of financial resilience could see swathes of small players go to the wall. Most threatened at the moment are performers in pubs and small clubs. These are forbidden from performing at present, and one estimate is that 64% of performers will leave the sector (Beaumont, 2020).

¹⁴² <https://www.hospitalitynet.org/hottopic/coronavirus>

¹⁴³ <https://www.metopera.org/season/in-cinemas/>

¹⁴⁴ <https://www.nationalgallery.org.uk/visiting/virtual-tours>

¹⁴⁵ For example https://www.youtube.com/watch?v=e5F1v_osAV0

¹⁴⁶ <https://www.louvre.fr/en/hours-admission-directions/admission>

A relevant question for the future might be; “what shape would this broad and complex set of activities have to take to recover and survive?” If the dominant criterion were to be economic weight in the competitive marketplace - at a time of extended recession, truncated air travel and low disposable incomes - it might end up facing drastic rationalisation. In employment terms, the creative industries has an unusual configuration. In many respects it is still “craft organised” - with a wide variety of talented individuals and small enterprises. A lack of resilience here could – as with the pub performers example above – see a quick shake out of, hard to replace, talent.

The sheer scale of the group of activities involved also draws in a “hard to count” but undoubtedly large, number of part-time, low wage and flexible workers. For those who directly service performances, events and venues, work has ceased across a wide spatial footprint (festivals for example). For a major city like London, at the top of the scale, the income and employment multipliers supported by international tourism and linked to the city’s cultural offer are considerable. Having it essentially “switched off” to wait for the virus to recede presents a scary prospect with a substantial cost to the nation¹⁴⁷.

As the UK entered a second significant infection surge at the end of September it was too early to say what the eventual impact would be. Those activities where the income stream is contingent on spatially compressed activities and dense occupancy will continue clearly to be seriously affected. Attempts are being made to recover. The National Trust is significantly shifting its focus and activities and shedding staff.¹⁴⁸ The Royal Albert Hall is trying to survive against a 96% income reduction¹⁴⁹. The Royal Shakespeare Company is trying to survive on donations and reserves (while also prioritising educational engagement)¹⁵⁰. In the current climate of anxiety and uncertainty, the immediate prospects do not look good and it is hard to express optimism for the “hard Winter” the Chancellor confirms is to come.

Against his stark warning, the Chancellor is judged to be making little contribution to keep things going here through his Winter Plan (Davies et al., 2020). Businesses such as theatres, music venues and event caterers now claim they will be left behind and struggling to make ends meet (Thorpe, 2020). Scottie Sanderson mourns the “catastrophic” effect the coronavirus lockdown has had on the events industry; *“Bands, caterers, lighting engineers, security guards, cleaners, ticket vendors, and many others, have seen their world fall apart. Even when we get a semblance of normality again people will have moved on. All these companies will have folded. Even if there is a vaccine, there won’t be anyone to put the gigs on”* (Davies et al., 2020).

7.4.5 Employment Outcomes: Recession adds increasingly large numbers to the pool of the vulnerable

Workers in the three production complexes we have just discussed were among the first to experience the most damaging short-term impact of the lockdown measures. It was a feature of the work tasks involved across the three activity complexes that large numbers of the workers were unable easily to distance and isolate themselves. They were involved in delivering a personal service to customers whose presence in numbers was essential to the business model. They were part of that wider cohort that included the “key workers” so widely praised for their diligence and sacrifice across the care, public transport and essential public services segments of the labour market.

¹⁴⁷ <https://www.london.gov.uk/what-we-do/arts-and-culture/cultural-infrastructure-toolbox/creative-industries-supply-chain-covid-19-impact>

¹⁴⁸ <https://www.museumsassociation.org/museums-journal/news/2020/08/national-trust-defends-restructure-plans/#>

¹⁴⁹ <https://www.royalalberthall.com/about-the-hall/news/2020/september/six-months-without-you/>

¹⁵⁰ <https://www.rsc.org.uk/news/coronavirus>

Many of the workers in the three groups of activities – but especially those in Arts, Culture, and Entertainment - operated across what has variously been called the *gig economy*, *the sharing economy and platform work*¹⁵¹ or were acting as sole traders or micro-businesses. Lockdown took the financial support from underneath them. The ability to earn an income simply ceased. Most were unable to take advantage of the provisions of the furlough scheme and the latest Jobs Support Scheme does little to help them (Davies et al., 2020).

As we entered the Covid-19 crisis a large share of those in work in the three complexes were *already in a precarious situation*. A class term – the *precarariat* (Standing, 2020) – living in poverty while still being in employment has been adopted to reflect this¹⁵² condition of vulnerability. Once work ceased, there was little or no financial resilience to absorb the shock. Many were dependent on low and intermittent wages just to pay their bills, put food on the table and get by. With the recession, they were joined by many newcomers to the condition whose jobs had been closed out. This was, of course, the group that had to go to work regardless of the risk to them, to their families and to their friends and neighbours. They did not have the option of staying at home or of avoiding public transport.

For those still employed, should they be forced to go into quarantine, income stopped - belatedly this was a situation recognised by government with a minimalist subvention to provide income. It should not, then, be a surprise that this is still the segment of the population in difficulty. Earliest and hardest hit by the virus, the same segment of the population figures strongly in the new secondary outbreaks and hotspots. On top of this, for those who find themselves unable to continue paying rent or mortgages, will come a very real risk of homelessness – once the protection against eviction is removed (MHCLG, 2020).

When a substantial shake-out of workers takes place such as the one we are seeing, workers losing higher status jobs tend to “trade down” the labour market to take jobs of a lesser standing (Harris, 2020). In this ‘bump down’ process, they replace or shut out workers downstream of them in the occupational hierarchy. People in secure jobs across the three activity complexes above - where in many cases activity virtually ceased - quickly found themselves vulnerable and having to trade down to take whatever work they could. As the Daily Mirror saw it: “Secure jobs face a bloodbath as, despite furlough and Universal Credit being inundated with claims, the number of Brits in zero-hours work has actually gone up” (Bloom, 2020).

As a result, for lower skilled or disadvantaged groups, jobs become even harder to find and durations of unemployment lengthened. Many slide into inactivity to add to the numbers already in a situation of disadvantage and precarity. Large numbers are pushed into dependence on a benefit system where the

¹⁵¹ “At its core, the gig economy is based on application driven platforms that dole out work in parcels – driving, delivering, cleaning are the most popular – where work is sourced and delivered over the internet/cloud. It is modern form of piece work – paid by piece delivered/order fulfilled. It can also apply more widely to any work contracted over the internet and carried out remotely” KOBIE, N. 2018. *What is the gig economy and why is it so controversial?* Wired.com. Published September 14. Available: <https://www.wired.co.uk/article/what-is-the-gig-economy-meaning-definition-why-is-it-called-gig-economy>. [Accessed July 6 2020].

¹⁵² *Forbes* in its *Global Analysis (2015)* in highlighting the rise of what it called the “temporary workers” phenomenon made the following arresting statement: “Mass hiring of temporary workers is not just a retail thing. It’s happening everywhere – all classes of work from the executive suite to field labourers in every industry across the globe”. In a study of the US Workforce 2020 the following are estimates of the use of temporary workers by different sectors showing the penetration of this form of working. In all, 82% of Retail employers used temporary workers. The equivalent for Financial Services was 81%; Healthcare 81% and Public Service Agencies 86%. It is suggested that the total share of self-employed workers in the US economy may rise to as much as 40 percent by 2020. Cited in LLOYD, P. E. 2019. *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Peter Lloyd Associates. Published December. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed February 3 2020].

sanctions of the Job Seekers Allowance (JSA)¹⁵³ drive them to search harder for jobs that are mostly impossible to find. We are hearing of thousands of applicants for a single low-level service job (Boyle, 2020), and significant increases in the number of applications for the public sector jobs that are being advertised (Anon, 2020c). A recent survey suggests that currently as many as one third of the UK workforce is “job-seeking” (Spaven, 2020).

As the distribution of the most negative impacts from the pandemic has become increasingly clear (largely impacting the young, the old and the socially deprived), questions about this appear to have been largely absent from the central policy agenda. The devastating effects of the pandemic and lockdown on the most marginal groups in society has generated no strong thread of government interest beyond extending local lockdowns in the worst hit communities¹⁵⁴ - while pursuing a rhetoric of “levelling up” and Prime Ministerial references to the power of the “British spirit”.

7.5 Geography: The Spatial Impact of Recession

7.5.1 Continuing damage to the disadvantaged places: What price levelling up?

Many of the country’s more vulnerable places rank high on the list of the most seriously impacted as infection, unemployment and poverty appear across local geographies. These badly hit places exist across the country, more in the north than the south. Many are those towns and villages that the government “levelling up” slogan seems to address. But losses are also strongly present in the major cities including London and the urban cores of the old industrial regions. Soundbite policies may have their place for aspiration - but will not substitute for some hard thinking about how to address *general inequality* as a defining feature of the advanced economies for past decades see (Piketty, 2020). While the spatial distribution of real hardship has far reaching importance, “levelling up” does not start and end with a geography of deprived places.

As Andrés Rodríguez-Pose warned us back in the “better days” of 2018, the patterns of deprivation and poor jobs that existed then were more than just an economic risk:

“The rapid rise of populism represents a serious and real challenge to the current economic and political systems. The stakes are exceptionally high and there is no time for business as usual. The array of solutions is, however, limited. Doing nothing is not an option, as the territorial inequalities at the root of the problem are likely to continue increasing, further stirring social, political and economic tensions.” (Rodríguez-Pose, 2018)

These tensions will not have gone away, and the structural weaknesses that existed before lockdown – like so many things associated with the virus – will see a sharp intensification. The operation of the labour market for the most disadvantaged both generally and in the disadvantaged places was failing to offer the resilience needed to cope when we had high rates of employment, let alone a pandemic and a recession.

In the case of the most deprived places, a study by the Joseph Rowntree Foundation (See Appendix 6.2) identifies those places that will find it hardest to recover from the economic downturn (Innes et al., 2020). JRF seeks to show where unemployment is likely to peak highest and for people to lose their jobs, against

¹⁵³ <https://www.gov.uk/government/publications/jobseekers-allowance-sanctions-leaflet/jobseekers-allowance-sanctions-how-to-keep-your-benefit-payment>

¹⁵⁴ A new and perverse form of the phrase ‘punishment will continue until morale improves’
<https://medium.com/swlh/the-beatings-will-continue-until-moral-improves-8b2614eb3ac4>

an estimate of how many job opportunities will be available locally¹⁵⁵. What is interesting is how clearly the list in Section Appendix 6.2 picks up so many of those places outside the South East where Covid-19 case rates remain persistently high and are growing again with local lockdowns in place – Bradford, Knowsley, Tameside, Oldham, Pendle, Hartlepool, South Tyneside and Blackpool for example.

Some of these places have a greater concentration of their jobs in the most hard-hit sectors in the old industrial regions but their chief feature is that they have local economies generally unable to meet the employment demands of their population. Some have special circumstances. In a case like Blackpool, now the “staycation” season has ended, and holiday resorts have returned to late-season mode, job losses are rising sharply as businesses still face strongly negative balance sheets (Partington, 2020). Places that generally have a heavy dependence on high street retail employers in poorer areas will also struggle to recover. Most of these areas have a high proportion of their local job offer in low wage precarious and flexible employment - the recent story of Boohoo and the clothing and textiles sector in Leicester offers an example of what this looks like (Nazir, 2020). People on low wages and insecure contracts are those more likely to lose their jobs first as we go forward into the winter season. Meanwhile:

“Boris Johnson remains such an optimist that he at least pretended to spend his Scottish staycation in a tent. Since his return he is instructing us all to resume normal life, sustain the summer’s encouraging economic recovery (15% in Q3 anyone?), to help save Pizza Express and all those deserted city centres. Up to 3.5 million still-furloughed jobs are at risk as the economy adjusts to new normal.” (White, 2020)

The story is by no means just about the deprived towns. The bulk of the population most likely to suffer from the post-lockdown recession is in the major cities and the suburbs surrounding them. Seven in the JRF list of most challenged places are in Greater London (Brent, Barking and Dagenham, Newham, Harringay, Ealing, Waltham Forest and Enfield). It is not just the old textile, coalfield and steelworks towns of the North that are suffering, Covid-19 has merely added to their existing economic woes. What is happening is that sectors that support some of the “regular” working population are facing redundancy and job loss in virtually every town and city across the nation and it is the people already in a situation of precarity who are least able to cope. The Chancellor’s latest programme to support employees in “viable companies” will do little to help them.

Whatever levelling up might mean, then, it should not be forgotten that it is in the cities (the conurbations) that most of the people experiencing growing distress are to be found. These are likely to be those for whom precarious work is generally the norm. They find work in low paid manufacturing or processing, in the local personal services, public transport, construction or in the care economy. They are drawn to the major cities by the high prospects of work with low barriers to entry but living costs see them having to cluster together in places where rents are affordable. They occupy rented accommodation in deprived neighbourhoods with low levels of public space. They have to travel on public transport. They inhabit those localities that are easily identifiable in those hotspots and clusters for the new spikes of Covid-19 that drive the news cycle on the state of the virus.

Many are to be found among the nation’s BAME population. These places are, inevitably, those at the top of the list for the most pernicious effects of the post-lockdown recession. As we enter the winter with a projected sharp rise in infections, we should worry about an existential threat to the national economy and to the stability of civil society with 3-4 million or more forecast to be unemployed.

¹⁵⁵ The methodology for calculating these variables is not set out.

7.5.2 Signs of distress in the more affluent areas

Retail, hospitality and associated services, pubs and clubs and local theatres and festival venues are being devastated by the pandemic. These operate across *all the spaces* of the UK. While the poorest places will be badly hit, a new set of spaces with problems is already appearing. We have already explored the losses among those external activities linked to the operation of airports. This additional level of distress where previously affluent places are not exempt comes on top of those regional imbalances between the north and the south that were always to be seen under the “old normal”¹⁵⁶.

While the number base is small (reflecting how rare a resort to Job Seekers Allowance, JSA, was before the pandemic), the list of towns with *more than a doubling* of JSA claim rates between March and June 2020 is not one we have been used to seeing (See section 1.7). Even the most affluent places are experiencing a sharp rise in unemployment and in applicants for Universal Credit. Indeed, places that had virtually no history of unemployment and where recourse to Universal Credit was low are appearing at the top in percentage change terms. When places like Guildford, Redhill, St Albans and Harrogate appear at the top of a list dealing with unemployment and benefit claims, and Slough and Crawley see sharp rises something worrying is going on.

7.5.3 An inadequate benefits system

In the face of a recession on the scale that has been described, the jobs the disadvantaged need are not going to be readily available on a scale needed to provide the basic conditions of life. A massive increase in the demand on foodbanks tells its own story (Bowman, 2020, Roberts, 2020). While the Chancellor has extended the embargo on evictions, this will simply put back the time when many will lose their homes as well as their livelihoods (Borland, 2020, BBC, 2020k). Still the legacy rules of JSA push people to look for jobs that are not going to be there and we now have a £250 million government scheme to provide job coaching in a situation where thousands already apply for a single job (Wearden, 2020b). Many among the families will be those young people whose life chances have already suffered through the impact on their learning of the lockdown. Not here are those home facilities that could keep education going while the schools were closed, and their children are most in need of help over lost schooling – yet it seems that “catch-up tutoring” is not to be available until the Spring of 2021 (Ferguson, 2020).

A benefit system constructed in a period of high employment and low unemployment is hopelessly inadequate for the current circumstances and will be even more out of touch in the future. Working at home means that knowledge is much more agile and mobile than before – businesses in some sectors may now recruit the most able applicants from anywhere in the country. A new approach to job search is needed by the benefits system when the world has changed so radically. The convention for someone without a job, and receiving benefits, is that they must search for jobs within a certain distance of their residence: “*You'll generally be expected to travel up to 90 minutes each way to work - if you won't be able to, explain why, For example, if you can't sit on a bus for that long due to a back problem. Ask to limit your travel time to what is manageable for you*”¹⁵⁷.

That sounds simple, but it does assume that the public transport will be available in time for you to go to work and to return – many of the precariat jobs involve ‘unsocial hours’ working, and bus networks beyond major cities have been rationalised over recent years and many now find their viability threatened (UTG, 2020). To find jobs more widely, those on benefit may have good knowledge and skills, but also may be unable to be easily mobile. Moving from one rented home to another can be challenging both logistically

¹⁵⁶ <https://news.sky.com/story/coronavirus-crisis-where-jobs-have-been-lost-across-the-uk-12029604>

¹⁵⁷ <https://www.citizensadvice.org.uk/benefits/help-if-on-a-low-income/jobseekers-allowance-jsa/help-with-your-jsa-claim/preparing-for-your-jsa-interview/>

and when housing costs in the destination location are higher. Mass unemployment is certain in the short term. Acknowledging this, even the Economist states in its issue of August 22, that: “*The DWP should be brushing up its knowledge of active labour-market policies. If mass unemployment is on the way, it’s going to need some ideas that work*” (ECONOMIST, 2020).

There is a demand-side issue adding to all this. Job loss, wage reduction, hollowing out and bump down acting in concert will see a massive fall in personal disposable incomes and public (tax base) revenue. Indeed, the generalised loss of spend across the population will reduce still further the potential for businesses to restore balance sheets and sustain or create new jobs. Public receipts will fall from the loss of tax revenues with public expenditure at unprecedented levels. Waiting for a V-shaped recovery, going back to what we had before and generally “hoping for the best” is, on the evidence set out here, a dangerously inadequate “strategy” (should what we currently see from government be dignified by the use of the word). But we do need to relegate sound bites to the party-political agenda they are designed for and begin to look at what some elements of a real strategy for the crisis might contain. We turn to this in the conclusion.

7.6 Conclusion

Facing the future, it would help to start by acknowledging the scale of the difficulties ahead. This we have tried to do in the paper. What we have described above is - in the currently most used word in the English language – unprecedented. Taking its literal meaning, the word suggests that we cannot fall back on previous experience as a way to think forward. Neither can we just wait and see while firefighting our way forward. This chimes in with what the businesses we talked about are already having to do. Legacy practice and legacy data have lost not all - but a substantial part of - their value for seeing the way forward.

Taking the positive, an opportunity presents itself imagine the future on different lines. As a society, for example, we could begin by establishing the principles we would insist on for a post-Covid-19 world. From the perspective here, this would be to accept nothing less than an inclusive and sustainable system that would capture the buy-in of a majority of the electorate. This is, of course, about politics - principled and democratic. The means to achieve it would as always be the stuff of political debate. We will not indulge ourselves by pursuing this further in the paper.

On the basis of what has been presented here, however, we can make some observations about what might need to be done to get us beyond the necessary fixes for the short term and on to something more fundamental. First, it looks increasingly clear that even beyond the crisis, there will not be enough jobs of the quality needed to maintain decent employment for a significant share of the population. It follows, that an expectation that all those able-bodied people in the working age groups to be in some form of paid work is not reasonable. Continuing to run a benefit system on the basis of this is patently absurd. Having JSA claimants continue to search for paid jobs where over three-quarters of a million jobs have been lost just so far¹⁵⁸ simply makes no sense. It is still not known how many closures and redundancies will arise as furlough ends but losses will continue. The House of Commons Treasury Committee has also argued against planned cutbacks in benefit; “*The Government has raised Universal Credit and made it easier to access. However, these changes are time-limited for a year. The Government should consider extending the measures increasing the generosity and accessibility of Universal Credit put in place in March 2020*” (COMMONS, 2020). While writing this Shell announced 9,000 job losses (BBC, 2020) and TSB nearly

¹⁵⁸ The rules for compulsory job search and coaching were suspended at the beginning of the pandemic but re-installed three months later.

1,000 (BBC, 2020n). Running a legacy welfare system that assumes the widespread job availability of 2019 in the face of all this has no functional basis.

Looking beyond furlough; there is at the very least a powerful case for some form of basic income support. Whether this comes in the form of Universal Basic Income (UBI) or Minimum Income Guarantee (MIIG) or any other similar format is less important at this stage than an acceptance in principle that only a nationally adopted and publicly administered scheme to provide a floor of income support to every worker and household in need is going to be necessary. This would be entirely consistent with the “general protection of human dignity” enshrined in the *Universal Declaration of Human Rights (1948)*, Art. 25; and the *International Covenant on Economic, Social and Cultural Rights (1966)*.

Such a scheme should be as simple and quick to administer as possible. As the New Economics Foundation argues (NEF, 2020), it would do more than support disadvantaged people; the demand stimulus from it would serve as a vital fiscal stabiliser for the economy. There may be room to debate the “universal” character of such a programme or its conditionality but a Europe-wide study of such schemes (Roosma and van Oorschot, 2020) shows that they would have wide popular support. Its vital role would be to provide disadvantaged people with the necessities of life at a time when poverty is already far too high in the UK. Indeed, the more disadvantaged areas of England are four times more likely to be locked down now than other areas (Barr and Halliday, 2020). That says more about conditions than it does behaviours.

A second powerful message is that, if past employment practices continue, the open labour market jobs on offer to an unacceptably large segment of the population will increasingly be low-wage, low-skill, low-attachment ones. These place large numbers of people in a condition of precarity where wage income is below that needed to sustain a decent livelihood (the in-work benefits system already acknowledges this). In a previous paper we reported the growing concerns about the scale of insecure work set out by the New Economics Foundation and the Living Work Foundation (Jaccarini and Krebel, 2020); *“millions are at risk of slipping into low-paid, insecure work as the economy recovers from coronavirus”*. At the start of the pandemic over 5 million UK workers were in, what the report described then, as insecure work. This is a good point to repeat the quotation from Wallace Stephens and the RSA (2019) that we used in the first paper:

“30 percent of workers don’t feel like they earn enough to maintain a decent standard of living (up from 26 percent in 2017). Almost one in four workers sometimes have trouble meeting their basic living costs because of income volatility (24 percent, up from 19 percent in 2017). Moreover, a significant number of workers lack financial resilience – 36 percent would struggle to pay an unexpected bill of £100; 59% would struggle to pay an unexpected bill of £500. A further 45 percent don’t expect to have enough in savings and pensions to maintain a decent living of living in retirement. While 32 percent are concerned about their levels of debt.” (Wallace-Stephens, 2019)

If that was then; it is hard to imagine what might be the case now. This presents clear evidence for a complete re-think. Simply allowing “market forces” to promote the colonisation of the UK labour market by jobs that consign people to precarity and insecurity cannot be allowed to propel us into the world beyond the pandemic. Not the least of this is because it will be society at large (through the State) that will be expected to assume (directly or indirectly) the growing burden of the downside risk when low wages and job insecurity let growing numbers of people to fall below the threshold of household survival.

We can see the price we have collectively pay when health inequalities place a substantial segment of the population at risk of disease. The idea that we should have to spend public resource through enhanced income support just to allow labour costs in the marketplace to be so low as to “price us back into competitiveness” is outrageous. If we need to think about income support in the new future, we should also

be taking a long hard look at the terms and conditions on which a substantial segment of the nation’s workforce is employed.

And then there are the ‘places’. Going forward there is no reason to believe that those at most risk of insecure work, unemployment, poverty and poor health will not be those already found in the areas/places suffering from significant disadvantage. Because we can observe the problem as presenting itself in geography – “left behind places”, “those inner cities”, “multiply deprived areas”, does not mean that the only solutions are to be locally deployed. Having a decent and non-punitive system of income support and for regulation to ensure fair wages and conditions would be vital to lift the burden from the concentration of the most deprived in blighted places. But this is not to say that *acting locally* does not bring substantial benefit on its own terms.

A part of any re-think has to take a more sensible view of the *governance system* we need to find a better balance between the central and the local. Covid-19 has provided us with some valuable, if painful, lessons about how far a highly centralised system of governance can go in dealing with things that happen in the complexity of the local grounded world. As yet, we still wait for government to recognise the power of the local in dealing with the virus. We concentrated on this in Paper 6 making the point that; “*facing a variable and flexible entity like the virus – simple and central control in the hands of a largely closed managing group can only go so far*”. Recent events with track and trace bear this out. We raised then the issue of orchestration and suggested that sound policy should be *co-designed* with local players rather than centrally imposed.

We need not just concern ourselves with governance but also with the benefits in an uncertain world to come from the connectedness of people, from the strengths that arise from the networks they inhabit, from the benefits of horizontally organised organisation and institutions, from the trust that can be initiated, worked on and sustained. This comes best locally (but conceived through networks as well as locations). Covid-19 has provided the opportunity for this to flourish and for people to become aware of the power of coming together locally for mutual support. There is much more to be said on this but, for the moment, in an already over-long paper, it would be best to refer readers to the very recent work of Hilary Cottam in her excellent paper on “*Welfare 5.0*” (Cottam, 2020).

Finally, if Covid-19 has taught us anything, it is that we cannot go on disregarding those people in our society who are struggling just to survive. Up to here, the health conditions that tend to come from being in that situation – diabetes, heart disease, obesity, and so on – could perhaps be pigeonholed as problems only for those concerned (just so long as there is a publicly financed health system in place that - expensively – will do its best to help them). The pandemic has been a wake-up call. We have had to come to the realisation in a pandemic-prone world that our neighbour’s health can become our problem too. In this sense, there is hope for a broader realisation of our social obligations to each other once we accept that we are indeed “all in this together”. As part of the re-think, our sense of individualism needs re-positioning in a world that understands the importance of our connection to others .

7.7 Appendices

7.7.1 The Chancellor’s programme to support jobs and businesses

SUMMER ECONOMIC UPDATE: PLAN FOR JOBS

“The plan will also create tens of thousands of jobs through bringing forward work on £8.8 billion of new infrastructure, decarbonisation and maintenance projects

This includes a £3 billion green investment package that could help support around 140,000 green jobs and upgrade buildings and reduce emissions.

As part of this package homeowners and landlords in England will be able to apply for vouchers from a £2 billion Green Homes Grant scheme this year to pay for green improvements such as loft, wall and floor insulation that could save some households hundreds of pounds a year on their energy bills while creating thousands of jobs for tradespeople.

And a £1 billion programme will make public buildings, including schools and hospitals, greener, helping the country meet its ambitions of achieving Net Zero by 2050, whilst investing in our future prosperity.

In addition, £5.8 billion will be spent on shovel-ready construction projects to get Britain building. This includes:

- *£1.5 billion for hospital maintenance and upgrades*
- *£100 million for our local roads network*
- *over £1 billion to start to rebuild schools in the worst condition in England, plus £760 million this year for key maintenance work on schools and FE colleges*
- *£1 billion for local projects to boost local economic recovery in the places that need it most*
- *£142 million for court maintenance to repair around 100 courts across England”.*

THE WINTER JOBS PLAN

Job Support

- Workers must work a third of their usual hours, paid by their employer as normal.
- For the time they are not working, the government will pay a third of their usual pay, and the employer will pay a third of their usual pay.
- Including the pay for the hours they are working; the Treasury says this means workers will get 77% of their usual pay.
- The scheme will be targeted at businesses that need it most – all small and medium-sized firms – but only for big companies if turnover has fallen by a third.
- The scheme will run for six months starting in November.
- Firms can claim both the jobs support scheme and the jobs retention bonus.
- A grant for self-employed workers will be extended on similar terms.

BUSINESS LOANS

- A “Pay as you grow” scheme to help companies repay state-backed business loans.
- Loans extended from 6 to 10 years reducing repayments with an option for interest-only payments and suspension for firms in “real trouble”.
- All of the state-backed loan schemes extended until the end of 2020 with a new loan guarantee programme to begin in January.
- VAT bills can be spread over 11 separate payments.

- Businesses will be required to cover 55% of the wages of workers on the programme (on the furlough scheme the most they have to cover is 20%).

7.7.2 The Potentially most challenged places post-Covid-19

Rank	Local authority	Potential peak unemployment rate	Current number of people out of work per vacancy
1	Brent	18%	63
2	Barking and Dagenham	18%	49
3	Newham	18%	39
4	Blackpool	21%	32
5	Haringey	17%	72
6	Sandwell	18%	34
7	South Tyneside	17%	36
8	Pendle	17%	37
9	Thanet	17%	30
10	Ealing	17%	30
11	Wolverhampton	18%	24
12	Hartlepool	16%	33
13	Walsall	16%	33
14	Kingston Upon Hull, City of	17%	36
15	Waltham Forest	16%	31
16	Oldham	17%	22
17	Enfield	16%	26
18	Tameside	15%	40
19	Knowsley	16%	27
20	Bradford	17%	22

Source: JRF analysis (Innes et al., 2020) of OBR coronavirus analysis, Business Register and Employment Survey (via NOMIS), Institute for Employment Studies' Weekly vacancy analysis, and ONS claimant count and vacancies time series.

7.8 Chapter bibliography

AFP. 2020. *UK economy crashes into recession after 20.4% second quarter slump; braces for spike in unemployment rate*. Agence France Presse. Published August 12. Available:

- <https://www.firstpost.com/world/uk-crashes-into-recession-after-economy-shrinks-by-20-4-in-second-quarter-due-to-coronavirus-pandemic-8699411.html>. [Accessed August 12 2020].
- AINGER, J., KARAMANIS, V. & WARD, J. 2020. *British Pound Plummets After Specter of a No-Deal Brexit Returns*. Bloomberg. Published September 7. Available: <https://www.bloomberg.com/news/articles/2020-09-07/pound-slides-after-johnson-puts-no-deal-brexite-back-on-table?srnd=markets-vp>. [Accessed September 8 2020].
- ANON. 2020a. *Academic study suggests post-Covid re-think of size of airline sector, its costs and impacts*. AirportWatch. Published September 16. Available: <https://www.airportwatch.org.uk/2020/09/academic-study-suggests-post-covid-re-think-of-size-of-airline-sector-its-costs-and-impacts/>. [Accessed September 18 2020].
- ANON. 2020b. *Airbus – in dire financial problems – talks of plans for hydrogen fuelled future planes*. AirportWatch. Published September 24. Available: <https://www.airportwatch.org.uk/2020/09/airbus-in-dire-financial-problems-talks-of-plans-for-hydrogen-fuelled-future-planes/>. [Accessed September 24 2020].
- ANON. 2020c. *Job applications leap 31% in public sector due to Covid*. Personnel Today. Published September 29. Available: <https://www.personneltoday.com/pr/2020/09/job-applications-leap-31-in-public-sector-due-to-covid/>. [Accessed September 30 2020].
- ARMITAGE, J. 2020. *British Airways job cuts top 8,200 as parent company IAG raises billions of euros to shore up finances*. Evening Standard (London). Published September 10. Available: <https://www.standard.co.uk/business/british-airways-jobs-redundancies-travel-quarantine-covid-a4544146.html>. [Accessed September 10 2020].
- ASCHER, D. 2020. *Whitbread to cut 6,000 jobs as hotel demand slumps*. British Broadcasting Corporation (BBC). Published September 22. Available: <https://www.bbc.co.uk/news/health-54246403>. [Accessed September 22 2020].
- BAKARE, L. 2020. *UK could become 'cultural wasteland' due to coronavirus, say leading artists*. Guardian (UK). Published April 26. Available: <https://www.theguardian.com/world/2020/apr/26/uk-could-become-cultural-wasteland-due-to-coronavirus-say-artists>. [Accessed April 27 2020].
- BARR, C. & HALLIDAY, J. 2020. *Poorest areas of England four times as likely to face lockdown as richest*. Guardian (UK). Published October 7. Available: <https://www.theguardian.com/world/2020/oct/07/poorest-areas-of-england-four-times-as-likely-to-face-lockdown-as-richest>. [Accessed October 8 2020].
- BBC. 2020a. *Amazon to create 7,000 UK jobs*. British Broadcasting Corporation (BBC). Published September 3. Available: <https://www.bbc.co.uk/news/business-54009484>. [Accessed September 3 2020].
- BBC. 2020b. *Co-op to create 1,000 jobs and open 50 new stores*. British Broadcasting Corporation (BBC). Published September 4. Available: <https://www.bbc.co.uk/news/business-54026218>. [Accessed September 4 2020].
- BBC. 2020c. *Coronavirus: Childcare exemption added to new restrictions in England*. British Broadcasting Corporation (BBC). Published September 21. Available: <https://www.bbc.co.uk/news/uk-england-54240681>. [Accessed September 21 2020].
- BBC. 2020d. *Coronavirus: Emergency money for culture 'won't save every job'*. British Broadcasting Corporation (BBC). Published July 7. Available: <https://www.bbc.co.uk/news/entertainment-arts-53302415>. [Accessed July 7 2020].

- BBC. 2020e. *Coronavirus: Hundreds of thousands of airline jobs at risk, warns industry body*. British Broadcasting Corporation (BBC). Published September 29. Available: <https://www.bbc.co.uk/news/business-54334558>. [Accessed September 29 2020].
- BBC. 2020f. *Coronavirus: UK 'could lose £60m a day' as tourism slumps*. British Broadcasting Corporation (BBC). Published August 26. Available: <https://www.bbc.co.uk/news/business-53921106>. [Accessed August 26 2020].
- BBC. 2020g. *Coronavirus: Virgin Atlantic to cut 3,000 jobs and quit Gatwick*. British Broadcasting Corporation (BBC). Published May 5. Available: <https://www.bbc.co.uk/news/business-52542038>. [Accessed May 5 2020].
- BBC. 2020h. *Covid: Northumbria University confirms 770 cases among students*. British Broadcasting Corporation (BBC). Published October 3. Available: <https://www.bbc.co.uk/news/uk-england-tyne-54394199>. [Accessed October 3 2020].
- BBC. 2020i. *Eat Out to Help Out: Diners claim 100 million meals in August*. British Broadcasting Corporation (BBC). Published September 3. Available: <https://www.bbc.co.uk/news/business-54015221>. [Accessed September 3 2020].
- BBC. 2020j. *M&S to cut 7,000 jobs over next three months*. British Broadcasting Corporation (BBC). Published August 18. Available: <https://www.bbc.co.uk/news/business-53817598>. [Accessed August 18 2020].
- BBC. 2020k. *Restaurants at 'critical risk' of eviction*. British Broadcasting Corporation (BBC). Published September 13. Available: <https://www.bbc.co.uk/news/business-54136993>. [Accessed September 15 2020].
- BBC. 2020l. *Shell to cut up to 9,000 jobs as oil demand slumps*. British Broadcasting Corporation (BBC). Published September 30. Available: <https://www.bbc.co.uk/news/business-54351815>. [Accessed September 30 2020].
- BBC. 2020m. *Tesco's 16,000 jobs drive to reward lockdown temps*. British Broadcasting Corporation (BBC). Published August 24. Available: <https://www.bbc.co.uk/news/business-53890220>. [Accessed August 24 2020].
- BBC. 2020n. *TSB to close a third of branches and cut 900 jobs*. British Broadcasting Corporation (BBC). Published September 30. Available: <https://www.bbc.co.uk/news/business-54343392>. [Accessed October 2 2020].
- BBC. 2020o. *UK DIY sales soar but clothing stores fall behind*. British Broadcasting Corporation (BBC). Published September 18. Available: <https://www.bbc.co.uk/news/uk-54201617>. [Accessed September 18 2020].
- BEAUMONT, M. 2020. *64 per cent of musicians may quit due to lack of help from the Government. What can be done?* NME.com. Published September 7. Available: <https://www.nme.com/features/excluded-choir-one-more-day-rishi-sunak-2746402>. [Accessed September 9 2020].
- BEGUM, F. 20216. *Mapping disease: John Snow and Cholera*. Royal College of Surgeons in England. Published December 9. Available: <https://www.rcseng.ac.uk/library-and-publications/library/blog/mapping-disease-john-snow-and-cholera/> [Accessed June 5 2020].
- BELLIS, K. 2020. *British Airways workers in Wales say they can't sleep and fear losing their homes over cuts*. Wales Online. Published August 14. Available: <https://www.walesonline.co.uk/news/wales-news/bridgend-town-british-airways-protest-18771081>. [Accessed August 16 2020].

- BENTLEY, D. & GIBBONS, B. 2020. *Universal Credit claims soar among over-50s as pandemic jobs' crisis hits older workers*. MyLondon. Published August 17. Available: <https://www.mylondon.news/news/uk-world-news/universal-credit-claims-soar-among-18780484>. [Accessed August 19 2020].
- BLOOM, D. 2020. *Zero-hour contracts top a million as benefits surge - 6 grim job stats out today*. Daily Mirror (London). Published August 11. Available: <https://www.mirror.co.uk/news/politics/breaking-zero-hour-contracts-top-22501848>. [Accessed August 12 2020].
- BORLAND, H. 2020. *RENTING RISK Hundreds of thousands of tenants behind on rent face losing homes this summer as evictions restart next month*. The Sun (UK). Published July 23. Available: <https://www.thesun.co.uk/money/12202041/hundreds-thousands-tenants-behind-rent-evictions-restart/>. [Accessed July 25 2020].
- BOWMAN, J. 2020. *Farnworth food bank sees 80% rise in usage*. The Bolton News. Published September 3. Available: <https://www.theboltonnews.co.uk/news/18692615.farnworth-food-bank-sees-80-rise-usage/>. [Accessed September 5 2020].
- BOYLE, D. 2020. *Coronavirus crisis sees job applications rise from an average of 25 to thousands for every role as Britons desperate for work apply for jobs they might have overlooked in the past*. Daily Mail (London). Published August 13. Available: <https://www.dailymail.co.uk/news/article-8623379/Coronavirus-crisis-sees-thousands-applicants-competing-role.html>. [Accessed August 13 2020].
- BUTLER, P. 2020. *Nearly half of BAME UK households are living in poverty*. Guardian (UK). Published July 1. Available: <https://www.theguardian.com/society/2020/jul/01/nearly-half-of-bame-uk-households-are-living-in-poverty>. [Accessed July 2 2020].
- CASWELL, M. 2020. *Virgin Atlantic announces a further 1,150 job cuts*. Business Traveller. Published September 4. Available: <https://www.businesstraveller.com/business-travel/2020/09/04/virgin-atlantic-announces-further-1150-job-cuts/>. [Accessed September 6 2020].
- CLARENCE-SMITH, L. 2020. *KPMG to make £16m from Intu administration*. Times (London). Published August 20. Available: <https://www.thetimes.co.uk/article/kpmg-to-make-16m-from-intu-administration-bmtzwzt39>. [Accessed August 20 2020].
- COMMONS. 2020. *Chancellor should "carefully consider" targeted extensions to Job Retention Scheme, urges Treasury Committee*. House of Commons, Treasury Select Committee. Published September 11. Available: <https://committees.parliament.uk/committee/158/treasury-committee/news/117449/chancellor-should-carefully-consider-targeted-extensions-to-job-retention-scheme-urges-treasury-committee/>. [Accessed September 13 2020].
- COTTAM, H. 2020. *Welfare 5.0: Why we need a social revolution and how to make it happen*. University College London. Published September 7. Available: <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2020/sep/welfare-50-why-we-need-social-revolution-and-how-make-it-happen>. [Accessed September 20 2020].
- DAVIES, R. 2020. *Sunak warned winter economy plan not enough to stop wave of job losses*. Guardian (UK). Published September 24. Available: <https://www.theguardian.com/politics/2020/sep/24/sunak-warned-winter-economy-plan-not-enough-to-stop-wave-of-job-losses>. [Accessed September 25 2020].
- DAVIES, R., CAMPBELL, L. & BUSBY, M. 2020. *'It's a nightmare': the business owners left behind by Sunak's winter plan*. Guardian (UK). Published September 26. Available: <https://www.theguardian.com/world/2020/sep/26/its-a-nightmare-the-business-owners-left-behind-by-sunaks-winter-plan>. [Accessed October 2 2020].

- EATON, J. 2020. *The UK suffers the worst recession of any G7 country*. New Statesman. Published August 12. Available: <https://www.newstatesman.com/politics/economy/2020/08/uk-suffers-worst-recession-any-g7-country>. [Accessed August 14 2020].
- ECONOMIST. 2020. *Mass unemployment threatens Britain*. Economist. Published August 22. Available: <https://www.economist.com/britain/2020/08/22/mass-unemployment-threatens-britain>. [Accessed August 27 2020].
- ELLIOTT, L. 2020a. *UK economy: a full recovery from the Covid slump will be slow*. Guardian (UK). Published August 12. Available: <https://www.theguardian.com/business/2020/aug/12/uk-economy-a-full-recovery-from-the-covid-slump-will-be-slow>. [Accessed August 12 2020].
- ELLIOTT, L. 2020b. *Up to 6m poor families could be £1,000 worse off under Sunak's plan*. Guardian (UK). Published September 25. Available: <https://www.theguardian.com/politics/2020/sep/25/poor-families-1000-pounds-worse-off-under-sunak-winter-plan>. [Accessed September 25 2020].
- FARRELL, S. 2020. *OECD says UK unemployment could peak near 15%*. Sharecast. Published July 7. Available: <https://www.sharecast.com/news/news-and-announcements--/oecd-says-uk-unemployment-could-peak-near-15--7566478.html>. [Accessed July 10 2020].
- FERGUSON, D. 2020. *Boris Johnson's catch-up tutoring 'will arrive too late' for pupils who need it most*. Guardian (UK). Published September 6. Available: <https://www.theguardian.com/education/2020/sep/06/boris-johnsons-catch-up-tutoring-will-arrive-too-late-for-pupils-who-need-it-most>. [Accessed September 6 2020].
- FORD, J. 2020. *The UK's aviation towns reel from the downturn in flights*. Financial Times (London). Published September 22. Available: <https://www.ft.com/content/0662c2fb-39bc-4c56-a777-ef432da04f37>. [Accessed September 25 2020].
- GEORGIADIS, P. & BUSHEY, C. 2020. *Airlines pine for roar of jet engines over the Atlantic*. Financial Times (London). Published September 21. Available: <https://www.ft.com/content/8920da61-9266-4ea3-9634-90b3c848aacf>. [Accessed September 22 2020].
- GILES, C. 2020. *BoE warns UK set to enter worst recession for 300 years*. Financial Times (London). Published May 7. Available: <https://www.ft.com/content/734e604b-93d9-43a6-a6ec-19e8b22dad3c>. [Accessed May 10 2020].
- GRAY, S. 2020. *Pizza Express closing: Restaurant chain to close 73 branches in the UK*. Daily Express (London). Published August 18. Available: <https://www.express.co.uk/life-style/life/1324399/pizza-express-closing-restaurants-closures-latest-news-uk>. [Accessed August 18 2020].
- GUARDIAN. 2020. *UK car production falls: full details*. Guardian (UK). Published September 25. Available: <https://www.theguardian.com/business/live/2020/sep/25/uk-borrowing-surges-august-covid-19-car-production-slumps-rishi-sunak-business-live?page=with:block-5f6d9d4d8f08f66bb0d1dfc1#block-5f6d9d4d8f08f66bb0d1dfc1>. [Accessed September 25 2020].
- HARRIS, J. 2020. *'Devastation': how aviation industry's Covid crisis is hitting towns across UK*. Guardian (UK). Published August 24. Available: <https://www.theguardian.com/business/2020/aug/24/devastation-how-aviation-industrys-covid-crisis-is-hitting-towns-across-uk>. [Accessed August 24 2020].
- HAVERY, G. 2020. *Concern student parties will spread Covid to communities*. Northern Echo (Newcastle). Published September 22. Available: <https://www.thenorthernecho.co.uk/news/18736437.concern-student-parties-will-spread-covid-communities/>. [Accessed September 24 2020].

- HAYHURST, L. 2020. *Ryanair job losses to be reduced after staff agree to pay cuts*. Travel Weekly. Published August 22. Available: <https://travelweekly.co.uk/articles/383697/ryanair-job-losses-to-be-reduced-after-staff-agree-to-pay-cuts>. [Accessed August 23 2020].
- IGNACIO, J. 2020. *S&P raises eurozone GDP forecast, sees deeper contraction for UK*. S&P Global. Published September 24. Available: <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/s-p-raises-eurozone-gdp-forecast-sees-deeper-contraction-for-uk-60467869>. [Accessed September 26 2020].
- INMAN, P. 2020a. *'Eat out to help out' did not boost hospitality sector finances – poll*. Guardian (UK). Published October 1. Available: <https://www.theguardian.com/business/2020/oct/01/eat-out-to-help-out-failed-boost-finances-uk-hospitality-industry>. [Accessed October 1 2020].
- INMAN, P. 2020b. *Fears for jobs grow as employers count cost of Sunak's winter plan*. Guardian (UK). Published September 26. Available: <https://www.theguardian.com/business/2020/sep/26/fears-for-jobs-grow-as-employers-count-cost-of-sunaks-winter-plan>. [Accessed September 26 2020].
- INNES, D., MCDONALD, R. & BENNETT, S. 2020. *Targeted action for parts of Britain at risk of surging unemployment*. Joseph Rowntree Foundation. Published August 7. Available: <https://www.jrf.org.uk/blog/targeted-action-parts-britain-risk-surging-unemployment>. [Accessed August 10 2020].
- JACCARINI, C. & KREBEL, L. 2020. *Tackling insecure work is vital to any meaningful recovery from crisis*. New Economics Foundation. Published June 19. Available: <https://neweconomics.org/2020/06/why-tackling-insecure-work-is-an-important-part-of-any-meaningful-recovery-from-crisis>. [Accessed July 6 2020].
- JACK, S. 2020. *Thousands of traditional retail jobs 'unviable', Next boss warns*. British Broadcasting Corporation (BBC). Published September 24. Available: <https://www.bbc.co.uk/news/business-54289780>. [Accessed September 24 2020].
- JONES, C. 2020. *The jobs market is far bleaker than the headline stats show*. Financial Times (London). Published October 2. Available: <https://ftalphaville.ft.com/2020/10/01/1601589803000/The-jobs-market-is-far-bleaker-than-the-headline-stats-show/>. [Accessed October 2 2020].
- KELION, L. 2020. *Excel: Why using Microsoft's tool caused Covid-19 results to be lost*. British Broadcasting Corporation (BBC). Published October 6. Available: <https://www.bbc.co.uk/news/technology-54423988>. [Accessed October 6 2020].
- KOBIE, N. 2018. *What is the gig economy and why is it so controversial?* Wired.com. Published September 14. Available: <https://www.wired.co.uk/article/what-is-the-gig-economy-meaning-definition-why-is-it-called-gig-economy>. [Accessed July 6 2020].
- LEBRECHT, N. 2020. *Covid crisis: Artist agencies stand down staff*. Slipped Disc. Published April 2. Available: <https://slippedisc.com/2020/04/covid-crisis-artist-agencies-lay-off-staff/>. [Accessed April 5 2020].
- LEISHMAN, F. & JONES, A. 2020. *Job Entry Targeted Support: New employment scheme to help those 'out of work' because of Covid-19*. Cambridgeshire Alive. Published October 5. Available: <https://www.cambridge-news.co.uk/news/uk-world-news/government-job-scheme-employment-coronavirus-19049108>. [Accessed October 5 2020].
- LLOYD, P. E. 2019. *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Peter Lloyd Associates. Published December. Available: <https://www.peter-lloyd.co.uk/papers-and-blogs/>. [Accessed February 3 2020].

- MCALLISTER, J. 2020. *UKH warns over scale of hospitality job losses without sector-specific employment support*. William Reed Business Media Ltd. Published September 16. Available: <https://www.bighospitality.co.uk/Article/2020/09/16/UKHospitality-warns-over-scale-of-hospitality-job-losses-without-sector-specific-employment-support>. [Accessed September 17 2020].
- MCKENNA, M. 2020. *In the Fight against Infectious Disease, Social Changes Are the New Medicine*. Scientific American. Published September. Available: <https://www.scientificamerican.com/article/in-the-fight-against-infectious-disease-social-changes-are-the-new-medicine/>. [Accessed September 16 2020].
- MCLOUGHLIN, B. 2020. *Wetherspoon job cuts: Tim Martin announces 450 of chain's 1,000 jobs at UK airports to go*. Daily Express (London). Published September 22. Available: <https://www.express.co.uk/news/uk/1338464/wetherspoon-job-cuts-wetherspoons-airport-pubs-job-losses-tim-martin>. [Accessed September 23 2020].
- MHCLG. 2020. *Ban on evictions extended by 2 months to further protect renters*. Ministry of Housing, Communities & Local Government. Published June 5. Available: <https://www.gov.uk/government/news/ban-on-evictions-extended-by-2-months-to-further-protect-renters>. [Accessed August 4 2020].
- MILNE, O. 2020. *Tory failure to support North with cash means Covid is 'levelling down' region, Burnham warns*. Daily Mirror (London). Published September 25. Available: <https://www.mirror.co.uk/news/politics/tory-failure-support-north-cash-22743795>. [Accessed September 26 2020].
- MURPHY, M. 2020. *STA Travel goes bust after coronavirus cancellations*. Daily Telegraph (London). Published August 21. Available: <https://www.telegraph.co.uk/business/2020/08/21/sta-travel-goes-bust-coronavirus-cancellations/>. [Accessed August 21 2020].
- NAZIR, S. 2020. *Boohoo accused of slavery practices in Leicester factory*. Retail Gazette. Published July 5. Available: <https://www.retailgazette.co.uk/blog/2020/07/boohoo-accused-of-slavery-practices-in-leicester-factory/>. [Accessed July 7 2020].
- NEF. 2020. *A Minimum Income Guarantee for the UK*. New Economics Foundation. Published March. Available: https://neweconomics.org/uploads/files/NEF_MinimumIncomeGuaranteeUK_March_2020.pdf. [Accessed April 6 2020].
- OECD. 2020. *Culture shock: COVID-19 and the cultural and creative sectors*. OECD. Published September 7. Available: <https://www.oecd.org/coronavirus/policy-responses/culture-shock-covid-19-and-the-cultural-and-creative-sectors-08da9e0e/>. [Accessed September 8 2020].
- PARTINGTON, R. 2020. *Hull and Blackpool have highest jobless rates in UK*. Guardian (UK). Published September 16. Available: <https://www.theguardian.com/business/2020/sep/16/hull-and-blackpool-have-highest-jobless-rates-in-uk>. [Accessed September 16 2020].
- PICKFORD, J. 2020. *UK creative industries risk 'cultural catastrophe' without support*. Financial Times (London). Published June 17. Available: <https://www.ft.com/content/aa93b17b-55ea-4273-aff0-80b6d92c2c8d>. [Accessed June 17 2020].
- PIKETTY, T. 2020. *Capital and ideology*. Cambridge, MA: Harvard University Press.
- RESOLUTION. 2020. *The Job Support Scheme will not support enough jobs – risking a major living standards squeeze*. Resolution Foundation. Published September 25. Available: <https://www.resolutionfoundation.org/press-releases/the-job-support-scheme-will-not-support-enough-jobs-risking-a-major-living-standards-squeeze/>. [Accessed September 25 2020].

- REUTERS. 2020. *S&P Global sees near 10% plunge in UK economy, warns on Brexit*. Reuters. Published September 24. Available: <https://www.reuters.com/article/uk-britain-economy-s-p-idINKCN26F1CU>. [Accessed September 26 2020].
- ROBERTS, A. 2020. *How a Sheffield foodbank has risen to the coronavirus challenge*. The Star (Sheffield). Published September 2. Available: <https://www.thestar.co.uk/news/people/how-sheffield-foodbank-has-risen-coronavirus-challenge-2958483>. [Accessed September 4 2020].
- RODRÍGUEZ-POSE, A. 2018. *The revenge of the places that don't matter (and what to do about it)*. Cambridge Journal of Regions, Economy and Society, 11, 1, 189-209. Available: <https://doi.org/10.1093/cjres/rsx024>.
- ROOSMA, F. & VAN OORSCHOT, W. 2020. *Public opinion on basic income: Mapping European support for a radical alternative for welfare provision*. Journal of European Social Policy, 30, 2, 190-205.
- SKY. 2020. *Pret A Manger cuts 2,800 jobs as sales sink to lowest level in 10 years*. Sky.com. Published August 31. Available: <https://news.sky.com/story/pret-a-manger-cuts-2-800-jobs-as-sales-sink-to-lowest-level-in-10-years-12057912>. [Accessed August 31 2020].
- SMC. 2020. *Measuring Poverty 2020*. Social Metrics Commission (UK). Published July 1. Available: <https://socialmetricscommission.org.uk/measuring-poverty-2020/>. [Accessed July 2 2020].
- SMITHERS, R. 2020. *Tesco to take on Amazon with free home delivery for premium cardholders*. Guardian (UK). Published August 16. Available: <https://www.theguardian.com/business/2020/aug/16/tesco-to-take-on-amazon-with-free-home-delivery-for-premium-cardholders>. [Accessed August 18 2020].
- SPAVEN, E. 2020. *A third of UK professionals are actively looking for work*. LinkedIn.com. Published October 7. Available: <https://www.linkedin.com/pulse/third-uk-professionals-actively-looking-work-emily-spaven>. [Accessed October 8 2020].
- STANDING, G. 2020. *Meet the precariat, the new global class fuelling the rise of populism*. World Economic Forum. Published November 9. Available: <https://www.weforum.org/agenda/2016/11/precariat-global-class-rise-of-populism/>. [Accessed June 3 2020].
- STRAUSS, D. 2020. *Millions of self-employed left out of latest UK support scheme*. Financial Times (London). Published November 8. Available: <https://www.ft.com/content/aa5b8d62-1f16-4ee4-bbbd-aa35b85fa5de>. [Accessed November 8 2020].
- SUBRAMANIAN, S. 2020. *Inside the airline industry's meltdown*. Guardian (UK). Published September 30. Available: https://www.theguardian.com/world/2020/sep/29/inside-the-airline-industry-meltdown-coronavirus-pandemic?utm_source=pocket-newtab-global-en-GB. [Accessed October 6 2020].
- THORPE, V. 2020. *Arts bailout delay leaves jobs at risk in UK and theatres on brink of ruin*. Guardian (UK). Published October 5. Available: <https://www.theguardian.com/culture/2020/oct/04/arts-bailout-delay-leaves-jobs-at-risk-in-uk-and-theatres-on-brink-of-ruin>. [Accessed October 5 2020].
- TREASURY. 2020a. *Chancellor's Plan for Jobs to help the UK's recovery*. HM Treasury (UK). Published July 8. Available: <https://www.gov.uk/government/news/rishis-plan-for-jobs-will-help-britain-bounce-back>. [Accessed July 8 2020].
- TREASURY. 2020b. *Winter Economy Plan*. HM Treasury (UK). Published September 24. Available: <https://www.gov.uk/government/publications/winter-economy-plan/winter-economy-plan>. [Accessed September 24 2020].

- TRIGGLE, N. 2020. *Covid: Is it time we learnt to live with the virus?* British Broadcasting Corporation (BBC). Published September 28. Available: <https://www.bbc.co.uk/news/health-54228649>. [Accessed September 28 2020].
- UCAS. 2020. *University applications rise during lockdown*. UCAS (UK). Published July 9. Available: <https://www.ucas.com/corporate/news-and-key-documents/news/university-applications-rise-during-lockdown>. [Accessed July 20 2020].
- UNESCO. 2020. *Culture and Covid - Impact & Response Tracker*. UNESCO. Published July 3. Available: https://en.unesco.org/sites/default/files/special_issue_en_culture_covid-19_tracker.pdf. [Accessed July 15 2020].
- UTG. 2020. *The Covid-19 Funding Gap: The Case for Continuing Support for Urban Public Transport*. Urban Transport Group. Published September 24. Available: <https://www.urbantransportgroup.org/resources/types/reports/covid-19-funding-gap-case-continuing-support-urban-public-transport>. [Accessed September 28 2020].
- WALLACE-STEPHENS, F. 2019. *Economic insecurity: the case for a 21st century safety net*. Royal Society for the encouragement of Arts, Manufactures and Commerce. Published August 16. Available: <https://www.thersa.org/discover/publications-and-articles/reports/economic-insecurity>. [Accessed April 13 2020].
- WEARDEN, G. 2020a. *Cineworld confirms UK and US closures; UK car sales hit two-decade low – as it happened*. Guardian (UK). Published October 5. Available: <https://www.theguardian.com/business/live/2020/oct/05/cineworld-cinema-closures-uk-us-car-sales-donald-trump-stock-markets-business-lvie>. [Accessed October 5 2020].
- WEARDEN, G. 2020b. *New jobs coaches will help people back to work, says Rishi Sunak*. Guardian (UK). Published October 5. Available: <https://www.theguardian.com/politics/2020/oct/05/new-jobs-coaches-will-help-people-back-to-work-says-rishi-sunak>. [Accessed October 5 2020].
- WHITE, M. 2020. *Are we over the worst or on cusp of calamity?* New European. Published September 3. Available: <https://www.theneweuropean.co.uk/top-stories/are-we-over-the-worst-or-on-cusp-of-calamity-1-6820305>. [Accessed September 7 2020].
- WHITEHEAD, J. 2020. *London City Airport to cut up to 35% of jobs in 'crucial restructuring'*. Independent (London). Published September 14. Available: <https://www.independent.co.uk/travel/news-and-advice/london-city-airport-job-cuts-restructuring-voluntary-redundancy-b435739.html>. [Accessed September 14 2020].
- WILSON, A. 2020. *Airport Covid testing could start within weeks, says Heathrow chief*. Guardian (UK). Published October 1. Available: <https://www.theguardian.com/travel/2020/oct/01/airport-covid-testing-could-start-within-weeks-says-heathrow-chief>. [Accessed October 3 2020].

8.0 Covid-19: Widening Inequalities and Changing Futures

This paper was released on 23 November 2020.

The Pandemic Summary Timeline – 11 October to 23 November 2020

14 October – Three new lockdown ‘tiers’ are put into action in England from 16 October. This leads to challenges from areas such as Manchester and London about the tiers applying to them.

20 October – Manchester is placed into Tier 3 (the highest) in spite of arguments from local politicians of the economic and social damage that would result.

22 October – A Nightingale hospital opens in Manchester.

23 October – The Prime Minister is how only hopeful that some ‘normality’ may occur over Christmas.

26 October – Northern Conservative MPs ask the Prime Minister for a clear lockdown exit ‘roadmap’.

28 October – There are calls for a coherent UK-wide policy over Christmas. One does not appear.

30 October – There are media reports that the Prime Minister is about to announce a country-wide lockdown in England. These reports are indicative of the leakage of information from the Government in advance of formal announcements, particularly announcements to Parliament.

2 November – The month-long lockdown starts. The Prime Minister argues that without this measure there would be a "medical and moral disaster" and assures the country that "without a shred of doubt" the lockdown would end on 2nd December – it does not.

3 November – A mass testing programme is announced for Liverpool.

4 November – The growth in infections and hospitalisations results in the NHS being placed on the highest level of alert.

10 November – A further 67 locations for mass testing are to be opened.

11 November – A programme of testing students is announced to allow their return home at the end of term.

17 November – The end of the England lockdown on December 2 is being reviewed in the light of infection levels and rates.

21 November – The Government announces a new 3-tier lockdown system from December 2.

Source: Derived from Wikipedia¹⁵⁹

¹⁵⁹ https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_England

8.1 Looking back at Paper 8

It is profoundly depressing that, in Paper 8, we wrote what we thought might be a final contribution to the unfolding tragedy of Covid-19 in the UK - only to discover that perhaps the worst is yet to come. Beyond the year end, with the rollout of the vaccines, the hope was that the “sunny uplands” would be in sight just over the horizon. The paper was designed as a summation of the key themes of a story we had been telling month by month over the past year and, it was a Conclusion to the collection of the papers.

Its two main themes had emerged early and become more clearly defined through the papers as the crisis evolved.

- First, **the pandemic was (is) a complex, dynamic and fast-moving process** that hits the ground differentially for people and places. To tackle it effectively beyond the emergency stage demands an approach that has the *requisite variety* to see and deal with complexly configured outcomes as they arise.
- Second, and following on from this, **the local level of governance and policy implementation** must be a key element of any meaningful intervention.

In November, when the paper was written, we were again in lockdown. Once again, this had come late in the face of the acceleration of the second wave. Once again, there had been scrambled last-minute adjustments to the introduction and modification of yet another system (this time ‘Tiers’); and to the endpoint of the Chancellor’s job support schemes. Once again, there had been prior promises overtaken and U-turns, hardly even to be remarked upon, as a confused month ran its course. Once again, the dire portents for non-compliance were read out from the three “pulpits” at the heart of government. For the population at large, a weariness was evident. Yet more confused messages and warnings of the consequences of non-compliance were being built upon a platform of growing mistrust in the competency of the government to deal with the crisis. One day before the end of the year and with Brexit in the government’s eyes having been “done”; a further 20 million people heard that that had been placed in Tier 4 – the highest level of lockdown; that the return to college had been delayed; and that secondary and many primary schools would not be opening as planned. The roll out of the Oxford- Astra Zeneca vaccine was announced at the same time – overlaying the bad news with something good.

- In the previous month, **test and trace** continued on its under-performing way. Mass testing (the “Moonshot”) was suddenly thrown into action in Liverpool. As usual, there was no prior attempt to warn the local population or consult. Tents with army personnel suddenly appeared at key locations. Analysis came afterwards from an academic research group scrambled into place to perform it. (*Looking back with the benefit of this analysis, we see that around half of the population of Liverpool took up the offer of a quick test - the half that did not turn up was mainly constituted by those in the poorest circumstances and those with the least mobility to access the testing sites*).
- That this should turn out to have been so was no surprise to anyone understanding the local situation. Indeed, our own papers (not knowing about the mass testing proposal) would have predicted the situation that unfolded - where those probably most in need of a test were the ones **who failed to turn out**.
- We had already suggested with others that some form of **meaningful income support might be needed** to persuade people to take a test. Some prior thought about design from the known features of the population might have made for a better outcome. The mass test did, however, have its value, as case outcomes fell sharply (*The mass testing programme has now been rolled out to*

other cities – following the practice of those countries that were able to control the virus in its early stages).

- Paper 8 used its position as the end summary of the series to reinforce some of the broader messages that had emerged over the preceding year. It brought back the significance of the way the technologies of the **digital transformation** had been applied to provide a ready-made solution to the “distancing” requirements of the pandemic. But the thrust of the paper was to emphasise that, at root, this solution was available to some – the better off – and not to others. – the more disadvantaged. The technological solution to Covid-19 was an accelerator of many things – not least social inequality along the lines of class gender and ethnicity.
- The paper deployed the idea of a “**syndemic**” to make its continuing point about the ‘concatenation of harms’ that perhaps as many as one-third of the UK population were experiencing under the pandemic.
- While the everyday news focus on cases, hospitalisation and deaths provided the headlines for the Covid-19 story, other stories about **growing mental health issues, the scourge of loneliness, the rise of poverty, and the general scourge of anxiety** were relegated to the Vox Pops and supporting items of the news media. Our view throughout the paper series has been that this is part of the main story and not just a matter of collateral damage (*Looked at from the present vantage point, the extremities of these syndemic conditions among the least advantaged in society are destined to become even worse during the first half of 2021, and it is the more urgent that a differentiated strategy to deal with the worst affected).*

Just after Paper 8 was published, the Chancellor produced his long-awaited Spending Review. The expectation that this would map out a strategic course out of the crisis was sadly frustrated. The greatest concern seemed to be state of the public finances. Grand spending plans to cope with the outfall of the pandemic were rolled out but, on closer scrutiny they turned out to be the same ones that had been launched at the beginning of the year with little value added. Embedded in the statement was the fact that the pathway of public spending cuts that had been set out before the crisis would continue – with local authorities still forced to reduce their expenditure. On top of this, fiscal rectitude demanded that public sector pay (outside the NHS) would be frozen. There was not a word about the position of the benefit system in the face of Covid-19.

- The sorry story that remained as we passed through Christmas when it was all to be “under control”, is that against a disaster of such magnitude and complexity, we have a government in power that is still locked into its original pathway of **centralised interventions, strapline messages and over-dependence on its immediate political and social circle.**
- We still await a full recognition of the real severity of the immediate and predicted impact of the crisis on the lives and livelihoods of a very substantial proportion of the population. The strategy of **waiting to see what the recovery looks like** seems to be the only one in place.
- Meanwhile **foodbanks are overwhelmed, child poverty is rising fast** and the aim still seems to be to exert downward pressure on the Universal Credit and Housing Benefit budgets.

Month after month – along with many, many others – we have striven to get messages across about the complex drivers of the pandemic process and the differentiated outcomes that they produce. We have called repeatedly for a more socially sensitive and locally applied approach. We have called for strategic rather than reactive thinking in respect of the economic crisis that we know already is to come. We have

called for more reflection, more listening and more respect to be given to the intelligence of the population. Tragically it has fallen on deaf ears. On the last day of 2020, we have a government congratulating itself that a Brexit deal has been agreed. Perhaps the greatest benefit of this will be that the government will be free to spare a lot more of its available capacity to look back at the pandemic record and devise a better and fit-for-purpose strategy to deal with the third wave and the even deeper recession to come.

PAPER EIGHT; WIDENING INEQUALITIES AND CHANGING FUTURES FOLLOWS

8.2 The “Second Wave”: Confusion, drastic measures and a loss of trust

8.2.1 U-turns, lockdown, and confusion in England: Lives disrupted

In the first week of November, following yet another spectacular U-turn, the policy to deploy the basic rules of infection control in England shifted suddenly and unevenly. From a short-lived situation where people could still come together in groups (in October with a magic number of 6 and three ‘alert levels’¹⁶⁰) the country was thrust into a second lockdown¹⁶¹. Under lockdown people could still go to work, and young people could go to school or college. Shopping was only for “essential goods”, with the demand to “stay home” again, and only make “necessary” journeys. And, drivers would be wise to understand the legal definition of what is ‘essential’, since if their journey resulted in an accident and the journey was ‘non-essential’ insurers could invalidate their policy (Nelson, 2020). Restaurants, pubs, and gyms (and even children’s sports activities) were closed. Medical needs could still be met - but with almost daily announcements about the regulation of access, and the pressure on hospital waiting lists for non-Covid-19 treatments (Triggle, 2020).

As has been so often the destabilising case, as soon as the rules were announced, there was an early U-turn - pubs could sell beer for ‘take-away’ (Butler, 2020). This was followed soon after by a reversal of the decision about the provision of meals for disadvantaged children (Richardson, 2020). No wonder people are anxious and confused. The government narrative returned to that of the beginning of the pandemic. Still “following the science”; we are invited to respond as good citizens to models and graphic depictions of the threats to come from unchecked virus transmission. If not, deaths would rise, and the NHS would be in danger of being overwhelmed (BBC, 2020b). The social bargain with the people that the NHS would be “saved” if we comply is now on the table again. Initially there was strong trust in this process with the SAGE committees providing independent scientific advice.

More recently (September and into October) the relationship between SAGE and the UK government has clearly broken down. The ‘scientists’ are now going public with their own views of the progression of the pandemic, and the government is in political contests with cities and regions (such as Manchester on 20 October with a deadline for decision imposed by the government) over levels of lockdown that seem to change by the hour. See (Moore and MacKenzie, 2020) for a wider discussion.

To run the same script - with the same podium headlines - shows just how far removed the English government has become from a grasp of where the citizenry currently find themselves. Also, in Northern Ireland the first minister admitted they “Could do better” (McCormack, 2020a). People are overloaded with information and with different stories in a world of fast-moving print and social media (Venkataramakrishnan, 2020). They are bemused by the complexity and variability of the advice and have

¹⁶⁰ <https://www.gov.uk/guidance/local-covid-alert-levels-what-you-need-to-know?priority-taxon=774cee22-d896-44c1-a611-e3109cce8eae>

¹⁶¹ <https://www.gov.uk/guidance/new-national-restrictions-from-5-november>

become more questioning of both its provenance and its efficacy. They are shocked by the levels of political patronage evident in the allocation of massive amounts of public money to companies for track and trace and other tasks: the National Audit Office was very critical of the lack of transparency in this process (NAO, 2020). The Prime Ministerial press conference announcing the November lockdown did little to convince the population that they had a government in control (Cable, 2020, Turnidge, 2020).

Ten months on from the start of the pandemic, we still do not hear that government is listening to social and behavioural science specialists telling us about how people are experiencing the pandemic¹⁶². Since the people are the active agents for virus control, the propensity for them to be able or willing to take the required action is vital. The goodwill of the population – so badly damaged at the outset by the Dominic Cummings fiasco – is a vital variable for positive outcomes and there is some evidence that this has significantly leaked away (Doward, 2020).

In November, raising the level of fear and anxiety does not seem to work in the same way as before, and it remains to be seen how the citizenry will respond as another real-time lockdown experiment gets under way. Most recently, on the basis of another centrally conceived idea, the people of Liverpool were targeted in an experimental programme of mass testing (BBC, 2020f) with the army heavily involved. As seems to be usual, this came without warning to the people or effective consultation with specialists in the field, and with limited success given the huge investment of money and resources:

“The other problem Liverpool throws up is getting people to take the tests. Despite Jurgen Klopp’s best efforts, just over 130,000 tests have been carried out. Some 400,000 adults live in Liverpool and more work there. That level of testing will reduce the spread of the virus, but it may not have a dramatic effect on transmission.” (ECONOMIST, 2020)

8.2.2 Narratives in flux: From saving lives and the NHS to the economy and back again

On the arrival of the latest lockdown, people heard from media reports that for weeks the English government had not been listening compliantly to its scientific advisors. It seemed that the government was beginning to worry more about the economy and the public finances. Then came the sudden about turn as the concern switched back to the load on the NHS. Government disarray was further emphasised with respect to the support people could expect to cope with the new measures. Only a week after highly publicised battles between the northern city mayors and the government over small additional sums of money to support Tier Three, the government announced that furlough in England was to be extended for a further month¹⁶³. That was on the Monday.

By the Thursday, another rushed announcement declared that the original furlough scheme would be extended to the end of March 2021 (BBC, 2020j). This was barely 5 hours before the old programme was due to expire. To make things worse, the three devolved administrations of the UK were (in the face of the same “science”) going their own way (Shrimmsley et al., 2020). Bizarrely, Wales was about to leave its own “circuit breaker” lockdown just as England entered its one month-long version (Johnson, 2020). Scotland continued to plough its own furrow with a five Tier programme of sub-regional restrictions¹⁶⁴, as did Northern Ireland (McCormack, 2020b). Meanwhile there were warnings that hospitals were coming under pressure and ICU bed capacity was reducing.

Nothing could be more damaging for public trust and compliance at a time when people are being asked once more to forego their basic life freedoms. People are rightly confused (BBC, 2020e). Even the basics

¹⁶² We hope government has them even if they are not in the public domain

¹⁶³ <https://www.gov.uk/government/news/furlough-scheme-extended-and-further-economic-support-announced>

¹⁶⁴ <https://www.gov.scot/coronavirus-covid-19/>

were being questioned by uncertainties arising from research. How long should people quarantine – 14 days, 10 days or what (BBC, 2020c)? Do limited curfews work? Is it, or is it not, risky to go on a bus (Culbertson and Aguilar-Garcia, 2020)? How well do masks work? Will a vaccine be successful, and so on. Failure at the centre is leading to information overload and to increasing exhaustion among the people (Venkataramakrishnan, 2020).

Opportunistic politicians are picking up on the climate of uncertainty. Capitalising on resistance to lockdown, the Brexit Party is mutating to become the Reform Party and oppose lockdown. Meanwhile there were warnings that hospitals are coming under pressure and ICU bed capacity was reducing, although, once again, those forecasts were seemingly not fully supported by the evidence (Knapton, 2020).

8.2.3 A climate of uncertainty and a cruel paradox

Ongoing research, and a growing tendency to scepticism and finger-pointing in the media, have both played a role in raising the level of uncertainty about what really works and just how to apply it in different situations. The science itself has been shown (as it should) to be debatable. It should have been clear at the outset that one of the problems of “following the science” (even if there is such a thing as “the” science) is that it can never produce the simple clear answers that people and policymakers need. By contrast with this, a total lockdown gives governments a clear and universally applied lever and a relatively simple to understand message that looks like direct action. This is, of course, just so long as the people are willing or can be coerced or be frightened enough, to comply. However, lockdown is a measure with potentially devastating economic and social consequences.

There is, then, a cruel paradox to be faced. The lockdown measure is simple and uniform. But the impact of it is not just for the economy as a whole. It has highly specific and strongly differentiated social as well as economic effects on particular segments of the population and the places where they live. There is evidence that it is highly gendered (BBC, 2020d). For some, the threat of the virus is set against their survival in other contexts. Bargains “for the good of the NHS and the nation” can be easily entered into by some in society but for others, those facing issues around food survival, the care of their children and precarious mental health, such grand acts of national solidarity can ring hollow.

More awareness is needed about the differentiation in society not just of the risks from Covid-19 contagion but also of the collateral effects of sanctions and lockdowns on those segments of the population for whom low income, disabilities (Sharman, 2020), or loneliness are life issues:

“The week after the clocks went back saw Britain's highest levels of acute loneliness in the pandemic, Office for National Statistics figures suggest. The start of November, with darker evenings, saw 8% of adults who were “always or often lonely” - representing 4.2 million people.”
(Coughlan, 2020)

Furthermore, mental health outcomes (Lintern, 2020) may be “life threatening” in a different sense. Where these effects bear directly on the willingness or ability to comply with the rules, they can significantly influence the process of contagion¹⁶⁵. And, with Brexit to come, levels of extreme poverty will increase (Rodger, 2020).

While the national lockdown measure was decreed by the Prime Minister as definitively short-term (until December 2nd), the effects on many will undoubtedly have longer term consequences from which they will

¹⁶⁵ For example, the government offers £500 to support those individuals forced by track and trace to quarantine. But the rules for qualification are stringent and limited to those both in employment and claiming benefit. Single parents who have to care for children returned home from school are not covered.

struggle to recover. This will be the case for some individuals and groups but also in the wider societal context. The long duration of the hiatus in what was considered to be “normal” life may serve to shift some fundamentals with profound and long-term ramifications. Tipping points may be passed at this stage that will be hard to recover from – not just in the economy but in the functioning of society as a whole.

We may not yet know enough to be sure how many things will pan out, but this should not stop us making an attempt to deal with those things that are staring us in the face. We should take seriously the advice from the Independent SAGE group that shows clearly that a ‘sticking plaster’ approach to the pandemic will not suffice. Simply responding to ‘this and that’ pressures of society, health, economy, public perceptions and behaviours, just shuffles the crisis around:

“The Covid-19 economic crisis is likely to further increase health inequalities unless the social safety net is improved. While the UK government has taken steps to mitigate some of the distributional impacts of COVID- 19, there is an urgent need for additional action to reinvest and rebuild capacity in all public services linked to a strategy for full employment and resource redistribution.” (IS, 2020)

We want to open this up in what follows as something that is immediately obvious about the current situation. The virus is having its most pernicious effects on those least able to deal with it and the measures to control contagion make things worse for them. We start by taking a broad view on how the arrival of the pandemic and the revolution in the digital technologies came together to provide some in society with a relatively easy pathway for coping with the crisis while others were left to struggle with its malign effects.

8.3 Technology amplifying difference

8.3.1 Possibilities for some: Networked and virtual people in fluid time and space

A vital part of our collective ability to cope with Covid-19 has come from the availability of a comprehensive suite of communications technologies (Hutchings, 2020). Through this, it has been possible for those with access to information and communication technologies (ICTs – but many do not have access (Nguyen et al., 2020)) to adjust key aspects of their economic and social activity and cut down their physical contacts to offset contagion. For the last 20 years as the Fourth Industrial Revolution emerged, we could not have known how lucky we would be when a global pandemic hit. Most of us were already into mobile phones, streamed entertainment content, Facebook, Instagram and WhatsApp. Business meetings using Zoom, Skype and Teams were already in play; making possible national and international connections that only a very short time earlier would have normally required travel to a physical location. They provided ready-made solutions to avoid physical contact for those people and companies able to adopt them.

Before the pandemic, while the technical capability existed to do things differently, it was widely accepted that physical movement with a given rhythm over the working day was the norm. Routinely, people joined the rush hour to spend a day with others in a workplace while muttering about the traffic or crammed public transport. They accepted that would take hours out of the day just to get from home to work and back. The work-life balance (Barslund, 2019) was a regular subject for discussion. On the social side, people tended to accept and value the “atmosphere” and social value (Muir, 2012) of a busy but not too crowded pub or entertainment venue. The crowd was part of the anticipated experience at a theatre or a sports event. The micro-motives of people at every level broadly reflected the established order of things; commuting, queuing, following the timetables of public transport, meeting for a coffee, mixing with the crowds in sports, cultural and other events. Change was on the way with the possibilities of the new technology, but while it was transformational, it was incremental.

Coping with Covid-19 demanded a profound transformation in this established ecology of work-home-play where people had previously aligned themselves around what we might call *space time congestion*. When lockdown brought the nation to a standstill; bringing the “old normal” to an abrupt halt, it was quickly realised that for some at least, life could quickly adjust. For this group, a wholly new alignment of life presented itself as an option to cope with the arrival of the virus. It would still be possible to gather safely together without number, space or time restrictions. Those who needed to, could just “dial up” their use of digital network communications technologies and work from home. They could still get together in virtual groups or crowds with wide variety – international if needed.

People with the right kit and resources could still watch football, watch concerts or binge on Netflix. While the ability to travel and connect with others in *physical space* was dramatically curtailed, it was still possible to have the world at the fingertips through a *networking device*. They did not physically have to go to “where it is or where others are” (whether it is the office, the theatre, the seminar or just a ‘get-together’ of friends, the bus stop or the railway station). For the luckiest ones, work could carry on and normal income continue to flow. This was one way that life – the urban variant of it at least – could be lived.

This acceleration in the adoption of the new technologies and new behaviours in response to the virus has profound implications not just for the present crisis but also for the future. By no means everything will change, of course. Some things will revert to the old order. But the digital revolution pushed forward under the pandemic has thrown open the door to a new set of widely available options not just for people but for the businesses that employ them or the retailers that provision them. A significant re-alignment in the use of space and time has become more feasible – one with profound implications. What this will look like is hard yet to predict clearly from a process still in motion. What we can see clearly already, however, is that - if left to play out for itself - this new and exciting set of possibilities will be *available to some but not all* and the upside and downsides of the process will be *allocated differentially* across economy and society.

8.3.2 Opportunity for some but not all: Difference by occupational and social status

In the previous section, the Covid-19 situation was being described largely from a perspective biased towards technologically savvy, city dwelling, probably office based, probably middle class, probably professionally skilled, workers and their families. Taking a wider view of the population would immediately throw into sharp relief how *partial and socially loaded* a view this is. For a substantial share of the population – the low paid, the financially fragile, the young and unemployed, the old and dependent, the ethnically and culturally diverse still facing discrimination – many aspects of this would look like an inaccessible world. Yes, a large proportion would probably be on Facebook and use Netflix and streaming services and have a smart phone. Their lives would have been changed by the new technologies. But; as for being able to cope with the pandemic by adopting the new technologies to work from home (with a resulting reduction in public transport use in (ONS, 2020a)) and able to carry on earning a decent salary (even if on furlough) through having the necessary kit; this is not an option available for others.

In occupational terms, this less adaptable group would tend to comprise workers in the lower paid reaches of the public services and in particular the “key” workers in health and social care. It would include taxis where “*One in five black cabs has been taken off London's roads since June due to a lack of passengers during the coronavirus pandemic, research reveals*” (BBC, 2020g)”, bus and train drivers, shop assistants and waiters; teachers; bar staff and pub entertainers; cleaners, food handlers and sandwich makers; garment and small factory workers; warehouse pickers and packers. Furthermore, consider that teachers are key workers who are placed in front of potential super-spreaders (i.e. children and young adults) with only minimal PPE: the Education Secretary in Scotland even seems to condone refusal to wear masks by schoolchildren (Anon, 2020).

Many of the private employers for this group would be small with a significant share of the workers from ethnic minorities (Wallis, 2020), who are self-employed, those on zero hours contracts or in the gig economy. These are people who would still have to turn up at a place of work at a given time and probably use public transport to get there. They would largely work in activities where close contact or face-to-face interaction is essential and where lockdown means closure. Many, by virtue of low rates of pay and loss of income on furlough would find themselves increasingly anxious about moving toward 'precarious' living (Jones, 2020).

The bulk of this *place and time constrained* occupational group where *face-to-face contact* is essential is likely to be in the lower paid and insecure part of the labour market that existed before the virus. They could not readily use the virtual and networked possibilities of the new digital technologies to shield them from the downsides of the pandemic. They are more at risk from recession. Their children cannot easily do their school lessons online at home. Responding to government requirements to change their way of living is intrinsically more difficult for them. It is not simply a matter of their willingness to comply.

For large numbers of the workers in this set of activities it has been furlough – “temporary, timely and targeted” that has kept them afloat during the crisis (Elliott, 2020b). In the first phase of the scheme with 8.9 million people at its peak, there was wide variety by sector and by age group. Significantly for our argument here, four out of five hospitality workers were furloughed at some point and this was 10 times the rate for the finance sector. Administrative and support services, arts, education and recreation, retail and wholesale trade and construction figured prominently in the early months alongside the badly hit hospitality and travel industry (ONS, 2020c).

Up to 80 percent of pay was available to a maximum of £2500 a month for those who worked at least 33 percent of their usual hours. Under the new scheme from November, only 20% of usual hours is required to benefit and the top up from firms is reduced from 33% – to just 5% (Partington, 2020). Few would doubt that credit is due to the Chancellor for what is a lifesaver. For the people involved, however, incomes inevitably shrunk. There was the ever-present threat that their employer would go under and that they would be made redundant. New lockdowns and restrictive “Tiers” are an existential threat. Any balanced cost-benefit analysis of future restrictions should factor in the social costs and their distribution as well as the economic ones.

For this substantial segment of the occupational distribution; the “old” normal was a time when employment rates were high, unemployment was low and consumer spend was buoyant. This represented a time when, despite low wages, the line could be held against financial stress. Facing deep recession and uncertainties about the shape and timescale of recovery, the prospects for many on the lowest rungs of the ladder are poor, if not disastrous. Even where furlough helped them to cope, albeit with reduced income, job loss would see them shifted to the limited support of the benefit system. Faced with this, many will be inclined to carry on earning when and wherever they can – even if they have to take on more personal contagion risk to do so.

8.3.3 Diverging opportunities challenging social cohesion

There is, then, much more going on than just Covid-19 and the recession associated with it. The ongoing revolution in digital technologies has meshed with the responses to the pandemic potentially to open up a pathway to a wider, more fundamental, change in the social order. This could be one with dangerous portents for social cohesion if it is not recognised and measures are not quickly taken to offset the more extreme long-term outcomes. Draconian controls on human interaction deployed across the full range of behavioural, social, and spatial processes in society have had a highly selective impact.

The rules and sanctions of physical distancing have very different meanings and implications wherever they land. Stories and symbolic references are attached to them – about what might work and what might not; about who does and does not break the rules; about the people who make the decisions and with what motives; about who might be suffering the least or the most; about who thinks they do and do not have to comply with the policy of the government and so on (Sodha, 2020). Pushed to extremes and set in a context where “fact” is easily manipulated to suit sectional interests, to generate ‘fake news’¹⁶⁶, and where social media can corral thinking to self-reinforcing pathways (Ferrara et al., 2020), a door can open to conflict and political opportunism.

As recent events in the USA have shown, people who feel that they tend to get the worst of things on all counts are a solid political constituency with considerable democratic weight. Even a President like Trump can have 75 million people vote for him. The politicians of the right have not been slow to recognise that political capital can be made out of Covid-19 stories, of a loss of personal freedom, of being “left behind” or being overridden by “others” (Pantucci, 2020). Post-Covid-19 and post-Trump, the politics of the next decade will likely pit cohesion against division in a way not seen since the Second World War.

8.4 Covid-19 selects for the vectors of economic disadvantage

8.4.1 Lockdown impacting “foundation economy” jobs and the low paid

It is hard to put numbers on that set of occupations we saw in the previous section as making it hard to avoid the worst effects of Covid-19, although the Office for National Statistics (ONS) is aiming to measure the economic impact¹⁶⁷. From an economic perspective, this wide set of jobs crossing the public and private sectors could account for as much as 30 percent of the working population in the capital and 40 percent in the other cities and urban regions, with many occupations involving more women – thus risking a further worsening of gender inequalities:

“Indeed, evidence from other countries shows us that furlough and its impact on gender equality cannot be viewed in isolation. Short Time Work schemes are more likely to be successful at supporting women’s employment when there are other supportive measures in place, such as family support policies, retraining programmes and high-quality job search services. The UK is unfortunately still a laggard in each of these areas – childcare is still the most expensive among developed countries, expenditures on active labour market policy measures are among the lowest and the privatisation of job search services has met considerable criticism.” (Cook and Grimshaw, 2020)

To a significant extent, the occupations that make up the set dominated by low pay and close interaction map onto what has come to be called the *foundation economy*. It represents the part of the economy that provides the *essential goods and services for everyday life*: 11% of these are non-UK nationals, with Brexit and immigration restrictions looming (ONS, 2020b). This covers the public utilities; food processing and the activities associated with it; travel and transport, retailing and distribution; and, of course, health, education, and welfare (Miller, 2017). (The standard sectoral perspective draws attention to the retail and hospitality element, but it goes much wider than that). While the “key” workers are still going to work and risking infection in parts of it, other elements are suffering the negative effects of lost incomes from lockdown as they depend on furlough. Relatively low rates of pay are normal for the bulk of the workforce.

¹⁶⁶ <https://www.bbc.co.uk/news/topics/cjxv13v27dyt/fake-news>

¹⁶⁷ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/publications>

Much of the employment in this segment of the economy is dependent on *public expenditure*; particularly through those services the Local Authorities directly or indirectly provide. Another of the deadly paradoxes of the moment is that while the Chancellor is pouring money into his furlough scheme, the Local Authorities are still dealing with the expenditure cuts and job restraints coming through from the demands of the government's austerity programme (Halliday, 2020a). It is hardly any wonder that the recent confrontation between the city mayors and the government revolved around additional funds to cope with the extra needs generated by the pandemic and further lockdown (LONDON, 2020, BBC, 2020a).

Health and social care accounts for a large proportion of these "foundational" jobs – a large proportion paid at below the real living wage (Booth, 2020). The main employers are the NHS, the Local Authorities, private care homes and social care providers, the charities (Dudman, 2020) and community organisations. Outside the NHS and the care economy, for those activities that are dependent on local footfall and consumer spend, lockdown is disastrous for the businesses concerned and many workers find themselves going from furlough to redundancy.

Indeed, anticipating the end of the government furlough scheme before its last-minute extension in early November, many local employers were forced to declare redundancies. Lockdown, recession and now lockdown again is devastating for what are, for the most part, labour-intensive small businesses and sole traders. The recent sharp uplift in the numbers of redundancies has seen a rise of unemployment to 4.8 percent (Elliott, 2020c) and over 300,000 people were made redundant in the three months to September 2020. Across all businesses it was reported on November 19, that "one in seven companies fear they are at risk of collapse in the next three months. The survey found that some 14% of British businesses said they have "low or no confidence" that they will survive the next 12 weeks" (Marris, 2020). We should be concerned that the likelihood is that many those losses will fall in those areas of the economy populated by workers already struggling to make ends meet.

8.4.2 Covid-19 infection rates by place through the lens of occupational structures

What we have been able clearly to see throughout the pandemic is that those northern cities showing the highest rates of infection tend to have economies that depend heavily on the sorts of occupations we have just been talking about (Halliday, 2020a). It is no coincidence that Lancashire and the 10 boroughs that form Greater Manchester were the ones that drove the debate about resources to support people through yet another phase of lockdown (Kirwen, 2020). A substantial proportion of the jobs and incomes of their residents is generated through those service-based, close-quarters activities that tend to keep the virus in play. As each day goes by, the local Directors of Public Health have been begging government to wake up to realities on the ground both in terms of the delivery of effective track and trace and financial support from the Treasury (Calkin, 2020).

This is, however, not just about the northern cities and the northern 'red wall' places that voted Conservative in the last general election (Hanley, 2020, Mattinson, 2020, Thorp, 2020). All the major cities offer intensive job opportunity for people working at the bottom end of the occupational hierarchy from cleaners, reception workers, and security guards to shop assistants to cafes and sandwich shops. In the face of Covid-19, when city businesses and their office workers exercised the choice to reconstruct their space and time schedules to work from home, the impact on this segment of the labour market became near catastrophic (Giles and Thomas, 2020). As we pointed out in the previous chapter, the major airport hubs also employ and indirectly support many people in low paid service activities¹⁶⁸. Jobs were lost and the income multipliers supporting significant employment in the towns local to them were sharply reduced.

¹⁶⁸ <https://www.airport-technology.com/news/covid-19-uk-airport-job-losses-shutdowns/>

So, while much has been written about the problems for low paid workers in the cities and towns of the old industrial regions, the pandemic and lockdown have triggered a condition of increased vulnerability for those who work in low wage, face-to-face and close quarters activities *wherever they are*. Covid-19 has shown more clearly how the economic system we choose to live under is capable of delivering a whole cohort of workers to a precarious existence. This can be as true in Slough, Luton and Croydon and the less well-off London Boroughs as it is in the old industrial towns of the North. This is a significant problem for the future. Recession and the long path to recovery will see large numbers join the ranks of the unemployed even as the virus comes under control. A general loss of spend in the economy overall will set a macroeconomic context where, without active government attempt at demand stabilisation, unemployment will continue to remain high – much of it in the local areas we have been describing.

By any measure, there is an imbalance in outcomes from the pandemic and the policies to control it that negatively affects a substantial share of the nation's population. The future prospects of those dependent on local jobs will depend critically both on the level of public expenditure the government sees fit to deploy in the recovery¹⁶⁹ (and we await the Chancellor's spending review); on ways to raise the scale and distribution of consumer disposable demand; and on the fortunes of sectors like travel and tourism. The overall prospects are poor and even Andy Haldane the Chief Economist at the Bank of England is expressing his serious concern that one of the features of the recovery will be a sharp increase in levels of social and geographical inequality¹⁷⁰. "Levelling Up" as a government catchphrase, looks entirely empty given what is at stake when such a large proportion of the working population will find it hard to recover from the pandemic.

The UK entered the pandemic with one of the highest levels of inequality among the most advanced nations. All the indications are that on the other side of the event, we may find ourselves in a situation where inequality will grow to pass critical limits unless the dangers are recognised early and acted upon.

"Covid-19 has accentuated Britain's deep class and generational divisions. While the middle classes have been safely working from home, the working classes have been at far greater risk by driving the buses, delivering parcels and keeping the supermarket shelves stacked." (Elliott, 2020a)

An economic strategy to deal with this prospect is vital even while the pandemic is still uncontained. The Chancellor's reluctant and late moves to extend the furlough scheme do not even begin to address what will be needed beyond March 2021.

8.4.3 High density living in high transaction spaces

There is another important contrast with respect to the suburban dwelling, office-based workers we described earlier as being able to ride out the Covid-19 storm and those less well positioned in the labour market with greater exposure to Covid-19. The less advantaged groups we have just been talking about have a distinctive geography at the local level. This is linked closely to their position on the earnings ladder. A substantial proportion will live in rented accommodation and in areas of dense housing with limited access to green space and good quality air. They are likely to be found either close to the location of their jobs or using public transport regularly to get to work. They probably have a social life that favours close inter-

¹⁶⁹ Already starting on November 20 with 'proposals' to freeze public sector pay (with some exceptions over certain key workers, but that was immediately controversial) BBC. 2020i. *Sunak faces backlash over public sector pay freeze*. British Broadcasting Corporation (BBC). Published November 20. Available: <https://www.bbc.co.uk/news/business-55011477>. [Accessed November 20 2020].

¹⁷⁰ Andy Haldane: Interview on Channel 4 News, 10th November 2020

personal interaction and family links centred perhaps round a pub, a mosque, a church, or a community centre.

These are not normally people for whom a loss of wage income is sustainable for any length of time. If they are to feed their family, they have to go to work – often regardless of the risk or even of the rules for self-isolation. Job Seekers Allowance (JSA) under the Universal Credit programme is still constructed around low rates of benefit designed to incentivise people to find work. Expecting those with no prospect of employment and struggling to put bread on the table for their families to take a Covid-19 test and, if positive, to quarantine for two weeks is a failure to grasp the reality of their lives¹⁷¹. We noted earlier the stringent rules attached to the cash support scheme for people forced to quarantine. At this point, then, we want to add into the susceptibility equation the way the *spaces for living* occupied by people on low incomes bear heavily on how challenging it can be to follow the rules recommended to avoid contagion. To put it simply; the lower wages that come with a job in the close contact personal services we have just discussed tend to follow through into high densities of occupation.

For those places where older 19th Century housing stock attracts those on limited incomes (the Lancashire mill towns we talked about earlier for example), we need to envision terraces of densely packed houses with front doors opening directly onto the street and a yard at the back. These are still very much part of the housing stock for those on low incomes. Distancing, contact, and quarantine rules here need to be set in context – not least where access to open spaces and children’s play areas is hard to find. Similarly, former council estates of older vintage – despite the best intentions of planners and architects with tight space constraints to work with – also offer affordable accommodation to low-income tenants. Here, “planned in” spaces may be more available by design - but staircases, corridors and (often dysfunctional) lifts challenge both social distancing and common-space cleaning requirements.

When it comes to private rented housing, high land values close to city centres tend to demand high density occupation to deliver a market return to landlords. Multiple occupation premises and multi-occupancy living is a normal feature of housing in the inner cities. Across the board, the shape and condition of the housing stock and its surroundings shapes contagion risk. For those on low incomes this tends to deliver a higher risk profile.

8.4.4 Combined and additive risk factors

Mapping the virus and the probabilities of contagion into these living spaces demonstrates how this becomes an *additive factor* - raising the level of contagion risk for people whose work and modes of transport already make it hard for them to follow the mandates of the government; however willing they may be to comply. The playing field is far from level. If distancing and the regular and effective cleaning of surfaces are the best defences against living space risks. How, we need to ask, does this play out across the environments we have just highlighted? Understanding local contexts is critical. For the past nine months over seven papers, we have been arguing for a *strong local component* to be added to measures for the control of the virus. Only now is policy being connected better to the local level – but even then mostly in relation to using local public health to add grounded context around the still in place and failing national track and trace system. There are mass testing programmes in the major cities. Once again there is a clever slogan – “Moonshot” – but sitting behind it a failure to consult either the recognised experts on mass testing or fully to grasp why it might be that the people who are most at risk will fail to come forward (Toynbee, 2020).

¹⁷¹ There is a small £20.00 per week “Covid uplift” payment attached to benefits, but it has a time limited life.

There is both a socio-economic and socio-geographic dimension to be accounted for in understanding contagion risk. This, as even the earliest epidemiological studies recognised, can only be interpreted and acted upon *locally*. The elements that underpin risk both for individuals and for the community are *connected and additive* (Halliday, 2020b). Those least well equipped to withstand the economic effects of the pandemic and - by virtue of known patterns of health inequality, least able to resist the more extreme medical outcomes - are clustered together in living environments with higher risk. Several times in past papers we have pointed to the co-occurrence of the maps of multiple deprivation, Covid-19 cases and severe health outcomes. There is a condition of co-causality here that works through as a *syndemic*. The Lancet defines this as follows and nothing could more succinctly capture the argument of this paper:

“a conceptual framework for understanding diseases or health conditions that arise in populations and that are exacerbated by the social, economic, environmental, and political milieu in which a population is immersed.” (Lancet, 2020)

UK residents have been living in one of the western world’s most unequal societies (Goulden, 2020). Now and over the months to come they will be witnesses to what this brings to the forefront when an economic shock on the scale now being predicted plays out. That there will be echoes of the Great Depression of the early 1930s will spotlight how far the nation has regressed since the progressive times that followed the Second World War. We cannot blame the technologies. They were there beforehand and what they do is what we choose for them to do. The aim here has been to show how this is working under Covid-19 to the even further disadvantage of those at the bottom of the income hierarchy. We have become participants in a real space time, economic and social experiment with long run implications that must surely change the way we envision the world our offspring will find themselves having to live with.

8.5 Conclusions

8.5.1 Taking on board class and age bias in outcomes

The dice for the worst risks of Covid-19 are loaded along class lines. The evidence is clear that the most disadvantaged are suffering the worst outcomes of the pandemic. Those at the lower paid end of the labour market, and to occupations that require close contact with others¹⁷², whose travel choices are limited to public transport and whose living spaces deny them the opportunity easily to socially distance are in the front line for continuing risk of infection. Some within this set have to deal with other influences that exacerbate their vulnerability: the BAME population for example, which has a case incidence three times the rate to be expected given the black and minority ethnic share of the population overall (Durham, 2020, Patel et al., 2020). It goes without saying, of course, that if age is added to the set, Covid-19 has particularly dire referents for the oldest in the community across the board.

We should not, however, forget the special position of the young in all this because of their less prominent position in cases and infection rates. By virtue of the way the virus selects for age, there is a tendency to underplay their special difficulties. Young people face losses of things particularly important to them. They find themselves restricted to a close-quarters home-based life: being shorn of a stable education and reasonable prospects for work; having to forego physical social contact with friends (and for many of those in low-income households - without the means to connect digitally); facing a future shrouded with uncertainty. Their position should be given as much voice as the most disadvantaged as a part of our

¹⁷² Not the least being the risks taken by those processing the Covid-19 tests in what clearly were very poor conditions – shown on 16 November in the Channel 4 documentary <https://www.channel4.com/press/news/dispatches-uncovered-serious-failings-one-uks-largest-covid-testing-labs>

society that requires particular attention in the face of the pandemic - not least because it is the young who will pay the long run future costs (Cocco, 2020).

8.5.2 System complexity and a 'syndemic'

To move forward effectively, there is a need to adopt a more rounded perspective on the situation confronting us. There are both short-term and long-term problems to deal with and we need to organise ourselves to address both, even while the current crisis is upon us. A first critical step would be to acknowledge the highly complex and integrated nature of the problem. While there is a national obsession about cases, hospital admissions and deaths, the *synergies and complex interactions* that drive the fast-moving dynamic system being surrounding Covid-19 are being downplayed.

Without being too technical, the discussions above show what some of the essential causal inter-connections in the system might look like. They do not normally appear in the epidemiologists' standard macro-models, but they do have power in conditioning outcomes. Complexity does not, of course, make for simple media messaging and government inspired straplines. It does not produce tidy numbers on two-dimensional graphs. As pointed out earlier, Covid-19 is *syndemic* in form. This brings other health conditions into the infection and outcome equation but also the "*the social, economic, environmental, and political milieu in which a population is immersed*".

Part of the problem with the policy response to the pandemic up to here has been its incorporation into the simplified messaging of campaigning politics. This brings in a tendency to over-emphasise some things at the expense of others and to over-simplify core messages. Eventually people come to see this as at being at odds with the complexity in what they see around them and diminishing returns set in. Lurching from one lockdown to another, with collateral effects that are additive for each drastic move, one problem (infection) elides into another (recession and social distress). The trade-offs between them are complex and seeing this as a binary problem (health versus economy) makes for flip-flop responses that are destabilising and dysfunctional and forfeit trust.

8.5.3 Matching policy governance to complex reality

The view from this paper is that central government is simply too far away from the grounded reality of the pandemic to design and implement fully effective intervention. It has a role and a critical one but it cannot and should not attempt to do everything from the centre. This is not about the politics of devolution (Hardly helped by reported allegedly negative views of the Prime Minister on devolution on 17 November (BBC, 2020h)), but of taking on board how little can ever be known at the centre about the vital nuances of what Covid-19 looks like at local level where the infections happen. Locking down whole administratively determined geographies (Counties and Strategic Local Authorities) was a step toward decentralisation, but Covid-19 does not respect local and regional government boundaries.

A clearer view of the detail at the lowest possible level of resolution is needed. Only by engaging the "bottom-up" sensitivities that can come by *engaging with and involving* a wide community of *local actors* is it possible to capture the "ground truth" of the pandemic in context. The Tier system was, of course, swept away by pulling the "big lever" of national lockdown but the questions about its ability to map effectively onto the progression of the virus locally will still be with us when moving to the next stage, with rumours of a move to "District level" lockdowns.

Very early in the progression of the pandemic it should have been obvious to the national politicians that the parts of the county that combined both the highest virus case rates and the highest levels of multiple deprivation were in the most impoverished parts of the northern conurbations. A deeper appreciation of why this was the case would have served to avoid unhelpful diversions such as the argument in some

quarters was that tiered lockdown was “just further punishment for the North” while the “well off” South could keep its economy running.

Cases are higher in the north and for very clear reasons. An up-front recognition of this as a justification for compensatory resource was precisely what the Mayors were arguing for. In the event, a battle about small money and of differential power between North and South dominated the headlines. This was quickly dropped through the imposition of a national lockdown, but it will surely return come December with the root issues untouched. There are critical issues of resource allocation and *effective multi-level policy governance* still outstanding. We have to hope that somewhere in government the “circuit- breaker” is being used to formulate a more nuanced pragmatic strategy with a better sense of pandemic geography.

8.5.4 Going to where the most affected people and groups are

A common response from the epidemiology community, all the way from the WHO to the regular academic interviewees on national and local television, to the question; “how do we get case rates to fall back?” is “people should follow the rules of distancing, quarantining and hand washing”. Based on this paper a rider to this would be; “easier said than done” for some people. This would suggest that an obvious route for policy intervention to deal with this issue is to find meaningful and effective ways of “making it easier” for people living precarious lives in areas of risk to comply.

The colloquial phrase “going to where people are” can be understood in two senses. First, it can mean “where” in the socio-economic order and in work-home life. Second, it can refer to geographical location and setting. In the paper we have separated out the two – although they are intrinsically inter-related. This grounds debate on dealing with the virus and its effects from the side of its social and spatial practicalities both of which play into each other.

Whatever the shape of the bounce back, we are going to continue to have to confront the issue of levels of income inequality in the UK, starting from a low point. In 2014, the UK had the dubious status of being the only country in the G7 group of leading economies where inequality had increased this century (Treanor and Farrell, 2002). More recently, the OECD found the UK 2016/17 to have some of the highest levels of income inequality in the EU (Robertson, 2018). Witnessing the events of 2020, society is going to have to ask itself whether, in the interests of all, we can allow an even more extreme situation of inequality to prevail. Furlough, that was to cease as planned at the end of October and is now extended to March 2021, has its focus on supporting jobs. It has been and still is welcome. But it is another “big lever” from the centre that is not sensitive to the finer detail of what sort of jobs are being preserved and lost while attempting to “keep afloat as many viable boats as it can”.

Around 300,000 people (mostly in small and new businesses) are estimated to have fallen through the job support net. Furlough as a scheme cannot have a sense of the wider realities of the functioning labour market. As we have seen, it runs in parallel with Treasury-led programmes to cut public expenditure year on year under austerity. So many of those public sector low pay “foundational” jobs important to local workers are caught up in this. Furlough also maps awkwardly into the platform and gig economy and the mass of sole traders whose situation does not fit its guidelines. It works wonderfully, of course, for “working from home” professionals and office workers.

Furlough, then, has structural biases that can widen not narrow income inequalities. How far, do we imagine, is it really penetrating the arena of those close contact service jobs that are most strongly affected by lockdown and that support large numbers of the low paid? We have yet to see the fine details but the sudden stop-start in early November may have been too late to stop redundancies in many of the most marginal small businesses in this group. The unemployment rate has now risen to 4.8 percent with projections that it may reach as high as 7 percent in the coming year. Furlough will need to end at some

point, and up to 300,000 workers will “slip through the cracks” of the Chancellor’s support schemes. Trade Unions are vociferous about the risk to jobs (UNITE, 2020). The world has changed and a debate is needed about how to support a large share of the population at an acceptable minimum level of income over the next years until and even beyond full recovery.

8.5.5 Providing income support

For the segment of the population highlighted in this paper, as the recession deepens they will find themselves joining the scramble to find jobs while having to depend on the meagre provisions of Jobseekers Allowance (JSA) and the other provisions of Universal Credit. While the virus is here, this will do little for their ability or willingness to comply with strict distancing and quarantine rules with rents to pay and families to support. Connecting high unemployment to the risky situation for the bulk of the workers affected, would point to a further deepening of their precarity and social distress.

As an illuminating recent example, the school meals debate has served to raise public awareness of the scale of child poverty in the country. A reduction still further in the incomes of those already struggling will face many more with a choice between quarantine compliance and feeding their children. Can it really be good policy to make it even harder for the most disadvantaged to maintain a basic living when we want them to be tested and quarantining when positive? Removing the £20 a week Covid enhanced payment makes no sense at all from this perspective.

This should bring government at the national level forward to a decision point. For some time, the introduction of a Universal Basic Income scheme has been on the agenda and rising in profile. Facing both the short term and the long, we have arrived at a position where serious consideration must be given to some method of providing basic income support outside the base expectation that most people should be able to find a reasonable job. Government argues that Universal Credit is already in place to do this, but the context has drastically changed. At the very least more, not less, income support is needed to enhance the effectiveness of infection control. For the recovery and the long term, broader issues of inequality in a post-Covid world will have to be addressed in a wider political framework..

There has, indeed, been a recent parliamentary debate on this, the outcome of which is informative. In response to a petition to “*Implement Universal Basic Income (UBI) to give home & food security through Covid-19 ...*” considered in an oral evidence session of the UK Parliament Petitions Committee on 17 September 2020... The UK Government said; “*a Universal Basic Income ‘does not target help to those who need it most’, stressing additional support provided during the coronavirus outbreak, such as the Job Retention Scheme and changes to Statutory Sick Pay and Universal Credit*” (Loft et al., 2020). It may be that UBI is not the definitive answer but we are not convinced that the current raft of measures just outlined meets the real requirements of those who need it most and will be fit for purpose in the deep recession ahead.

8.5.6 Active labour market policy

As discussed in Paper Seven in our series, the next two to perhaps three years will likely see many fewer jobs on offer than workers looking for employment. There will be new jobs, of course, and even now there are reports of shortages in some sectors and places but, on balance, there may be at least 3 million unemployed people, and a substantial share of the unemployed total will be in the younger age groups. The “bump-down” process, as those previously in higher skilled and better paid jobs trade down to lower levels in the labour market, will probably expand the numbers of the current lower paid in the unemployed total. This will come on top of a structural component as job losses and gains select for different sectors and occupations. It is a reasonable expectation that the burden of job loss, unemployment and time spent out of work will tend to fall on those with lower skill and previously on low pay.

Those “trading down” might have the effect of provoking a much-needed increase in productivity with their better skills background while taking lower pay. But hoping that this will boost job creation and expanded labour demand will inevitably be a slow game in the climb out of recession. We have been here before, of course, but maybe not on the scale of what is about to be confronted. The experience of the late-1990s is the most recently relevant and it is, perhaps, time to dust off the playbook for what was done and what lessons were learned. At the very least there is a need to do something *at scale* for the young and the already disadvantaged. It would take another paper to do this justice so we will restrict ourselves here to recovering just one idea that may have some value under the present conditions.

The Active Labour Market Policies (ALMP) of the European Union were brought in during earlier phases high unemployment in the 1990s. They were different because they were based on measures conceived both centrally and locally - but *articulated and delivered locally*. The policy was able particularly to take on board the issues of young people and the long-term unemployed and inactive whose normal job horizon was the immediate local labour market. It was a creative approach, consonant at the time with the popularity of working locally in partnership and developing the social economy.

What emerged was a creative flowering (through EU Structural Funds support) of large numbers of projects across the participating Member States. The jobs to be filled were in the interstices of the regular labour market. They were based on things that were seen to be needed locally but that did not stack up in balance sheet terms in the private sector or were not feasible where local public funds were under pressure. Many of these jobs were able to offer the unemployed a first stepping-stone into work (in the lexicon of the time - Intermediate Labour Market (ILM) jobs) -building bridges into normal employment).

What we would now recognise as environmentally-friendly jobs figured strongly in those policies – recycling and refurbishment (the circular economy); environmental improvement and energy conservation (green jobs), for example. But large numbers of job creating projects run by social economy organisations and the voluntary sector came in to fill gaps in the health and social care and family support sectors (part of the foundation economy). The needs were there to be filled by a programme that gave the double benefit of meeting local social and environmental needs with the added bonus of activating the unemployed at a time of crisis. Many young people were drawn into the programmes in their locality (learning their way into work for the first time) and it was a short step to integrate them into more formal learning programmes to build their skills.

Across the European Union, ALMP is still in place and in a position to be expanded again to meet the needs of the crisis (CoR, 2020). The issue that always has to be confronted with this kind of approach is how to scale it up to the level needed to meet the demands of the jobless. Thirty years on, much has been learned about how to achieve this. The best outcomes arise where there is a solid base to work from in the organisations of local and national civil society. The difficulty in the case of the UK in introducing such a scheme is that, politically, the programme comes from roots that are the polar opposite of a regime of hyper-centralisation where the organisations of local civil society are routinely undervalued. This should not mean that in a time of revolutionary change, sound approaches of whatever provenance should not be up for consideration.

During the 1990s, the UK had its programme matching the principles of ALMP. However, today, the infrastructure to build on is no longer so readily mobilizable at the scale required. At the moment, UK job support is predominantly dedicated to meeting the needs of local employers under a market forces philosophy. These needs should be met, of course. But in the circumstances to be faced, while necessary, this is going to be nowhere near sufficient – particularly for the most disadvantaged places whose economies tend to struggle even in the best of times. There needs surely to be a direct programme

alongside the business-led agenda to raise skills, confidence and aspirations in the workforce regardless of the shape of the local economy.

But, even this, post-Covid-19, will not be enough. We argued for this in Paper Six in the context of skills development and a provision for lifelong learning, New publicly supported programmes are needed locally and at scale to recruit the unemployed into meaningful work along the lines we have just discussed. It is not that there is not much needing to be done – to feed the green jobs agenda, to add to the care economy, to improve energy efficiency in homes, to improve the physical infrastructure. What needs doing will be obvious to people and to voluntary and charitable organisations on the ground. They need to be supported by the necessary central resources and support and allowed the creative freedoms to help build actions at local level and set them in a context of skill-building for the new economy.

8.6 Chapter bibliography

- ANON. 2020. *Don't exclude pupils who refuse to wear masks – Scotland's education secretary*. Express and Star (Wolverhampton). Published August 31. Available: <https://www.expressandstar.com/news/uk-news/2020/08/31/dont-exclude-pupils-who-refuse-to-wear-masks-scotlands-education-secretary/> [Accessed September 1 2020].
- BARSLUND, M. (ed.) 2019. *Policies for an Ageing Workforce: Work-life balance, working conditions and equal opportunities*. Brussels: Centre for European Policy Studies.
- BBC. 2020a. *Boris Johnson blames London mayor for TfL 'bankruptcy' before Covid-19*. British Broadcasting Corporation (BBC). Published October 21. Available: <https://www.bbc.co.uk/news/uk-england-london-54624961>. [Accessed October 23 2020].
- BBC. 2020b. *Coronavirus lockdown: PM warns UK faces 'medical disaster' without action*. British Broadcasting Corporation (BBC). Published November 2. Available: <https://www.bbc.co.uk/news/uk-54783076>. [Accessed November 3 2020].
- BBC. 2020c. *Coronavirus: 14-day quarantine for Covid contacts could be reduced*. British Broadcasting Corporation (BBC). Published October 25. Available: <https://www.bbc.co.uk/news/uk-54678809>. [Accessed October 25 2020].
- BBC. 2020d. *Covid has 'devastating' impact on gender equality*. British Broadcasting Corporation (BBC). Published November 20. Available: <https://www.bbc.co.uk/news/business-55002687>. [Accessed November 21 2020].
- BBC. 2020e. *Covid: Confusion over fresh talks in Manchester tier row*. British Broadcasting Corporation (BBC). Published October 17. Available: <https://www.bbc.co.uk/news/uk-54584583> [Accessed October 17 2020].
- BBC. 2020f. *Covid: Queues as Liverpool's city-wide coronavirus testing begins*. British Broadcasting Corporation (BBC). Published November 6. Available: <https://www.bbc.co.uk/news/uk-england-merseyside-54828634>. [Accessed November 6 2020].
- BBC. 2020g. *London taxis stored in fields as passenger demand 'evaporates'*. British Broadcasting Corporation (BBC). Published November 18. Available: <https://www.bbc.co.uk/news/uk-england-london-54974425>. [Accessed November 19 2020].
- BBC. 2020h. *Scots Tory leader says Boris Johnson 'believes in devolution'*. British Broadcasting Corporation (BBC). Published November 17. Available: <https://www.bbc.co.uk/news/uk-scotland-scotland-politics-54973449>. [Accessed November 18 2020].

- BBC. 2020i. *Sunak faces backlash over public sector pay freeze*. British Broadcasting Corporation (BBC). Published November 20. Available: <https://www.bbc.co.uk/news/business-55011477>. [Accessed November 20 2020].
- BBC. 2020j. *Sunak to extend furlough scheme to end of March*. British Broadcasting Corporation (BBC). Published November 5. Available: <https://www.bbc.co.uk/news/business-54824120>. [Accessed November 5 2020].
- BOOTH, R. 2020. *Three-quarters of England's care workers earn below 'real' living wage*. Guardian (UK). Published November 13. Available: <https://www.theguardian.com/society/2020/nov/13/three-quarters-of-englands-care-workers-earn-below-real-living-wage>. [Accessed November 13 2020].
- BUTLER, S. 2020. *Takeaway beer back on pub menus in England after lockdown U-turn*. Guardian (UK). Published November 3. Available: <https://www.theguardian.com/business/2020/nov/03/takeaway-beer-back-on-pub-menus-in-england-after-covid-lockdown-u-turn>. [Accessed November 3 2020].
- CABLE, V. 2020. *Boris Johnson could lose his 'red wall' seats due to pandemic incompetence*. Independent (London). Published October 13. Available: <https://www.independent.co.uk/voices/boris-johnson-coronavirus-voters-red-wall-local-lockdown-tiers-b1012726.html>. [Accessed October 20 2020].
- CALKIN, S. 2020. *Frustrated public health directors slam NHS Test & Trace*. Local Government Chronicle. Published October 30. Available: <https://www.lgcplus.com/politics/coronavirus/frustrated-public-health-directors-slam-nhs-test-trace-30-10-2020/>. [Accessed October 31 2020].
- COCCO, F. 2020. *The kids aren't alright: How Generation Covid is losing out*. Financial Times (London). Published November 17. Available: <https://www.ft.com/content/0dec0291-2f72-4ce9-bd9f-ae2356bd869e>. [Accessed November 19 2020].
- COOK, R. & GRIMSHAW, D. 2020. *In the absence of other supportive measures, the UK's furlough scheme will reinforce gender inequalities*. London School of Economics & Political Science. Published November 19. Available: <https://blogs.lse.ac.uk/politicsandpolicy/furlough-scheme-gender-inequalities/>. [Accessed November 20 2020].
- COR. 2020. *Results of the joint CoR-OECD survey on "The impact of COVID-19 on EU regional and local governments"*. Committee of the Regions of the European Union. Published November 19. Available: <https://cor.europa.eu/en/news/Pages/econ-cor-oecd-survey-covid-19-results.aspx>. [Accessed November 19 2020].
- COUGHLAN, S. 2020. *Lockdown loneliness reaches record levels*. British Broadcasting Corporation (BBC). Published November 18. Available: <https://www.bbc.co.uk/news/education-54973709>. [Accessed November 19 2020].
- CULBERTSON, A. & AGUILAR-GARCIA, C. 2020. *Coronavirus: Why public transport could be safer than we thought*. Sky.com. Published October 7. Available: <https://news.sky.com/story/coronavirus-why-public-transport-could-be-safer-than-we-thought-12091657>. [Accessed October 15 2020].
- DOWARD, J. 2020. *Good neighbours? No, UK's community spirit fell in summer Covid lockdown*. Guardian (UK). Published November 7. Available: <https://www.theguardian.com/world/2020/nov/07/good-neighbours-no-uks-community-spirit-fell-in-summer-covid-lockdown>. [Accessed November 8 2020].
- DUDMAN, J. 2020. *'A devastating loss of funds': UK charities count the cost of Covid*. Guardian (UK). Published November 12. Available:

- <https://www.theguardian.com/society/2020/nov/12/devastating-loss-funds-uk-charities-count-cost-covid>. [Accessed November 14 2020].
- DURHAM, N. 2020. *Major study into heightened COVID-19 risk for BME healthcare workers launched*. NHS Confederation. Published July 29. Available: <https://www.nhsconfed.org/news/2020/07/major-study-into-heightened-covid19-risk-for-bme-healthcare-workers-launched>. [Accessed August 6 2020].
- ECONOMIST. 2020. *Scouse lessons: Liverpool's mass-testing shows promise, but must reach more people*. Economist. Published November 21. Available: <https://www.economist.com/britain/2020/11/21/liverpools-mass-testing-shows-promise-but-must-reach-more-people>. [Accessed November 20 2020].
- ELLIOTT, L. 2020a. *The Covid-19 blunders drive home a harsh truth: the state has failed us*. Guardian (UK). Published November 11. Available: <https://www.theguardian.com/commentisfree/2020/nov/11/the-covid-19-blunders-drive-home-a-harsh-truth-we-live-in-a-failed-state>. [Accessed November 12 2020].
- ELLIOTT, L. 2020b. *Temporary, timely and targeted. Furlough has proved to be just one of these* Guardian (UK). Published October 29. Available: <https://www.theguardian.com/uk-news/2020/oct/29/temporary-timely-and-targeted-furlough-proved-to-be-just-one-of-these-coronavirus>. [Accessed October 30 2020].
- ELLIOTT, L. 2020c. *UK redundancies hit record before second Covid lockdown*. Guardian (UK). Published November 10. Available: <https://www.theguardian.com/business/2020/nov/10/uk-redundancies-second-covid-lockdown>. [Accessed November 10 2020].
- FERRARA, E., CHANG, H., CHEN, E., et al. 2020. *Characterizing social media manipulation in the 2020 U.S. presidential election*. First Monday, 25, 11, online. Available: <https://dx.doi.org/10.5210/fm.v25i11.11431>.
- GILES, C. & THOMAS, D. 2020. *Cities count cost of lasting exodus from offices*. Financial Times (London). Published September 14. Available: <https://www.ft.com/content/203cc83c-72b0-49c9-bea5-6fb38735a8fc>. [Accessed September 14 2020].
- GOULDEN, C. 2020. *UK Poverty 2019/20*. Joseph Rowntree Foundation. Published February 7. Available: <https://www.jrf.org.uk/report/uk-poverty-2019-20>. [Accessed June 3 2020].
- HALLIDAY, J. 2020a. *Austerity left north of England more vulnerable to Covid, report says*. Guardian (UK). Published November 11. Available: <https://www.theguardian.com/uk-news/2020/nov/11/austerity-left-north-of-england-more-vulnerable-to-covid-report-says>. [Accessed November 11 2020].
- HALLIDAY, J. 2020b. *Poor areas of England face 'permanent' lockdown, says public health chief*. Guardian (UK). Published November 18. Available: <https://www.theguardian.com/world/2020/nov/18/poor-areas-of-england-face-permanent-lockdown-says-blackburn-public-health-chief>. [Accessed November 18 2020].
- HANLEY, L. 2020. *The real red wall: Liverpool, Covid-19 and the north-south divide*. Financial Times (London). Published October 16. Available: <https://www.ft.com/content/afb01dca-dec4-4993-a608-09ad7f4e4176>. [Accessed October 18 2020].
- HUTCHINGS, R. 2020. *The impact of Covid-19 on the use of digital technology in the NHS*. Nuffield Trust. Published August 27. Available: <https://www.nuffieldtrust.org.uk/research/the-impact-of-covid-19-on-the-use-of-digital-technology-in-the-nhs>. [Accessed August 31 2020].

- IS. 2020. *COVID-19 and Health Inequality*. Independent Scientific Advisory Group for Emergencies (SAGE). Published November 13. Available: <https://www.independentsage.org/covid-19-and-health-inequality/>. [Accessed November 15 2020].
- JOHNSON, B. 2020. *Coronavirus: 'Confusion' over different lockdown approaches in England and Wales*. Sky.com. Published November 2. Available: <https://news.sky.com/story/coronavirus-confusion-over-different-lockdown-approaches-in-england-and-wales-12121907>. [Accessed November 3 2020].
- JONES, C. 2020. *The jobs market is far bleaker than the headline stats show*. Financial Times (London). Published October 2. Available: <https://ftalphaville.ft.com/2020/10/01/1601589803000/The-jobs-market-is-far-bleaker-than-the-headline-stats-show-/>. [Accessed October 2 2020].
- KIRWEN, E. 2020. *Greater Manchester 'offered millions' to join Liverpool in Tier 3 lockdown*. Liverpool Echo. Published October 19. Available: <https://www.liverpoolecho.co.uk/news/uk-world-news/greater-manchester-offered-millions-join-19126651>. [Accessed October 20 2020].
- KNAPTON, S. 2020. *Hospital intensive care no busier than normal for most trusts, leaked documents show*. Daily Telegraph (London). Published November 3. Available: <https://www.telegraph.co.uk/news/2020/11/03/hospital-intensive-care-no-busier-normal-leaked-documents-show/>. [Accessed November 3 2020].
- LANCET. 2020. *Syndemics: health in context*. The Lancet, 10072, 881. Available: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)30640-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30640-2/fulltext).
- LINTERN, S. 2020. *Mental health of coronavirus sufferers is being ignored, Royal College of Psychiatrists warns*. Independent (London). Published October 23. Available: <https://www.independent.co.uk/news/health/coronavirus-mental-health-royal-college-psychiatrists-adrian-james-b1253895.html>. [Accessed October 25 2020].
- LOFT, P., KENNEDY, S., MACKLEY, A., et al. 2020. *The introduction of a universal basic income*. House of Commons Library. Published October 8. Available: <https://commonslibrary.parliament.uk/research-briefings/cdp-2020-0096/>. [Accessed October 20 2020].
- LONDON. 2020. *COVID-19 Response and Government Funding (2)*. Mayor of London. Published June 18. Available: <https://www.london.gov.uk/questions/2020/1885>. [Accessed June 20 2020].
- MARRIS, S. 2020. *COVID-19: One in seven UK companies fear they are at risk of collapse, ONS survey finds*. Sky.com. Published November 19. Available: <https://news.sky.com/story/covid-19-one-in-seven-uk-companies-at-risk-of-collapse-ons-survey-finds-12136139>. [Accessed November 19 2020].
- MATTINSON, D. 2020. *Handling of Covid-19 increases 'red wall' voters' complaints of government*. Guardian (UK). Published October 18. Available: <https://www.theguardian.com/society/2020/oct/18/handling-of-covid-19-increases-red-wall-voters-complaints-of-government>. [Accessed October 18 2020].
- MCCORMACK, J. 2020a. *Covid-19 decision dysfunction mars Stormont's report card*. British Broadcasting Corporation (BBC). Published November 21. Available: <https://www.bbc.co.uk/news/uk-northern-ireland-55016585>. [Accessed November 21 2020].
- MCCORMACK, J. 2020b. *Covid-19: Restrictions have gained NI 'important ground'*. British Broadcasting Corporation (BBC). Published November 5. Available: <https://www.bbc.co.uk/news/uk-northern-ireland-54816952>. [Accessed November 5 2020].

- MILLER, J. 2017. *The foundational economy*. Welsh Government. Published March 2. Available: <https://seneddresearch.blog/2017/03/02/the-foundational-economy/>. [Accessed June 4 2020].
- MOORE, A. & MACKENZIE, M. K. 2020. *Policy making during crises: how diversity and disagreement can help manage the politics of expert advice*. British Medical Journal. Published October 20. Available: <https://www.bmj.com/content/371/bmj.m4039>. [Accessed November 20 2020].
- MUIR, R. 2012. *Pubs and places: The social value of community pubs (2nd ed, 2012)*. Institute for Public Policy Research. Published January 24. Available: <http://www.ippr.org/publications/55/8519/pubs-and-places-the-social-value-of-community-pubs>. [Accessed January 27 2012].
- NAO. 2020. *Investigation into government procurement during the COVID-19 pandemic*. National Audit Office (UK). Published November 18. Available: <https://www.nao.org.uk/report/government-procurement-during-the-covid-19-pandemic/>. [Accessed November 18 2020].
- NELSON, N. 2020. *Drivers warned car insurance may be invalid for non-essential journeys in lockdown*. Daily Mirror (London). Published November 7. Available: <https://www.mirror.co.uk/news/politics/drivers-warned-insurance-invalid-non-22974841>. [Accessed November 8 2020].
- NGUYEN, M. H., GRUBER, J., FUCHS, J., et al. 2020. *Changes in Digital Communication During the COVID-19 Global Pandemic: Implications for Digital Inequality and Future Research*. Social Media + Society, July-September 2020, 1-6. Available: <https://doi.org/10.1177/2056305120948255>.
- ONS. 2020a. *Coronavirus (COVID-19) in 10 charts*. Office for National Statistics (UK). Published September 24. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19in10charts/2020-09-24>. [Accessed September 24 2020].
- ONS. 2020b. *Coronavirus and non-UK key workers*. Office for National Statistics (UK). Published October 8. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/coronavirusandnonukkeyworkers/2020-10-08>. [Accessed October 8 2020].
- ONS. 2020c. *Furloughing of workers across UK businesses: 23 March 2020 to 5 April 2020*. Office for National Statistics (UK). Published April 23. Available: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/furloughingofworkersacrossukbusinesses/23march2020to5april2020>. [Accessed April 29 2020].
- PANTUCCI, R. 2020. *How the pandemic is making extremism worse*. Prospect Magazine. Published October 28. Available: <https://www.prospectmagazine.co.uk/politics/how-the-pandemic-is-making-extremism-worse-covid-19>. [Accessed October 29 2020].
- PARTINGTON, R. 2020. *Changes to the coronavirus job support scheme in England explained*. Guardian (UK). Published October 22. Available: <https://www.theguardian.com/politics/2020/oct/22/changes-to-the-coronavirus-job-support-scheme-in-england-explained>. [Accessed October 22 2020].
- PATEL, P., KAPOOR, A. & TRELOAR, N. 2020. *Ethnic inequalities in Covid-19 are playing out again – how can we stop them?* Institute for Public Policy Research. Published October 19. Available: <https://www.ippr.org/blog/ethnic-inequalities-in-covid-19-are-playing-out-again-how-can-we-stop-them>. [Accessed November 2 2020].

- RICHARDSON, H. 2020. *Marcus Rashford welcomes school holiday support climbdown*. British Broadcasting Corporation (BBC). Published November 8. Available: <https://www.bbc.co.uk/news/education-54841316>. [Accessed November 8 2020].
- ROBERTSON, S. 2018. *Is inequality in the UK on the rise?* Lendingworks. Published November 8. Available: <https://www.lendingworks.co.uk/blog/economy/inequality-uk-on-the-rise>. [Accessed June 5 2020].
- RODGER, H. 2020. *Number of Scots living in extreme poverty will double due to Brexit and Covid-19*. The Herald (Scotland). Published November 5. Available: <https://www.heraldscotland.com/news/18848321.number-scots-living-extreme-poverty-will-double-due-brexit-covid-19/>. [Accessed November 8 2020].
- SHARMAN, L. 2020. *People with learning disabilities six times more likely to die from COVID-19*. Localgov.com. Published November 13. Available: <https://www.localgov.co.uk/People-with-learning-disabilities-six-times-more-likely-to-die-from-COVID-19/51407>. [Accessed November 14 2020].
- SHRIMSLEY, R., FOSTER, P., PICKARD, J., et al. 2020. *Will coronavirus break the UK?* Financial Times (London). Published October 21. Available: <https://www.ft.com/content/05bcdeed-ce2d-4009-a3bc-cf9bb71c43d5>. [Accessed October 21 2020].
- SODHA, S. 2020. *Why Nigel Farage's anti-Covid-lockdown crusade is a cause for grave concern*. Guardian (UK). Published November 10. Available: <https://www.theguardian.com/commentisfree/2020/nov/10/covid-lockdown-nigel-farage-brexit-national-panic>. [Accessed November 11 2020].
- THORP, L. 2020. *Liverpool is tired, angry and ready for a fight with Boris Johnson*. Guardian (UK). Published October 29. Available: <https://www.theguardian.com/commentisfree/2020/oct/29/liverpool-boris-johnson-tories-levelling-up-coronavirus>. [Accessed October 31 2020].
- TOYNBEE, P. 2020. *Operation Moonshot ignored screening experts. No wonder it's failing*. Guardian (UK). Published November 19. Available: <https://www.theguardian.com/commentisfree/2020/nov/19/operation-moonshot-england-screening-covid-testing-liverpool>. [Accessed November 20 2020].
- TREANOR, J. & FARRELL, S. 2002. *UK only G7 country with wider inequality than at turn of century*. Guardian (UK). Published October 14. Available: <https://www.theguardian.com/society/2014/oct/14/uk-inequality-wealth-credit-suisse>. [Accessed October 24 2020].
- TRIGGLE, N. 2020. *Coronavirus: Year-long waits for hospital care in England worst since 2008*. British Broadcasting Corporation (BBC). Published November 12. Available: <https://www.bbc.co.uk/news/health-54886286>. [Accessed November 13 2020].
- TURNIDGE, S. 2020. *Second Lockdown: Critics Slam Government's 'Staggering Incompetence'*. Huffington Post. Published October 31. Available: https://www.huffingtonpost.co.uk/entry/second-lockdown-critics-slam-governments-incompetence-coronavirus_uk_5f9d8ceac5b60eefc8532688. [Accessed November 3 2020].
- UNITE. 2020. *As furlough scheme ends Government must bring forward plan for protection of health, jobs and incomes, Unite warns*. UNITE Union. Published October 31. Available: <https://unitetheunion.org/news-events/news/2020/october/as-furlough-scheme-ends-government-must-bring-forward-plan-for-protection-of-health-jobs-and-incomes-unite-warns/>. [Accessed November 1 2020].

VENKATARAMAKRISHNAN, S. 2020. *Growing numbers disconnected from Covid-19 news, suggests new report*. Financial Times (London). Published October 27. Available: <https://www.ft.com/content/1b8ab329-3a90-4c75-980d-2155a187edea>. [Accessed October 28 2020].

WALLIS, W. 2020. *The gig economy: how the Covid crisis has hit UK minorities hardest*. Financial Times (London). Published November 18. Available: <https://www.ft.com/content/01143e91-bf35-4480-b90f-cab139765e18>. [Accessed November 19 2020].

9.0 Conclusions – As we enter 2021 ...

9.1 Bringing the story up to date

9.1.1 Fast moving events in December

We cannot leave the story of Covid-19 without bringing things up to date through the month of December 2020. This this was a month that saw a crisis similar to that in March and April rear its ugly head once more. As we had been indicating in Paper 8 in mid-November, cases of Covid-19 were beginning to rise rapidly again (Roxby, 2020, BBC, 2020d, McKie et al., 2020). What was not apparent at that that time was the arrival of the new and more contagious variant form of the virus (Giles and Burn-Murdoch, 2020, Craig and McGuinness, 2020). By the beginning of December, this new form was widely spread throughout the South-East of England. It was thought to have occurred first (although the precise origin of the variant was not clear at the time of writing) in Kent and then spread through Essex and around the M25 northern circuit. From that point on it began to spread out across the London area as a solid red stain on the ONS map of cases (ONS, 2020). It was reported that the second variant is around 70% more transmissible than its predecessor.

While this was going on in South, however, the North was going in the opposite direction. Case counts were falling in those areas that had already been allocated to Tier 3 and there was a general sense that the restrictions had worked. The binary distinction that we had lived with between North and South through the autumn was turned on its head. The South-East was now the area of greatest concern while the North West (previously the problem case) was seeing case levels fall. Merseyside, that had been among the greatest areas of concern in October-November (when it entered Tier 3 and was subjected to mass testing) had seen a dramatic drop in the incidence of the virus.

As the month of December proceeded, the alarm surrounding the new variant form of the virus grew quickly. Over time, many of the central London hospitals had been forced to move to Covid-19-only case admissions (Jooshandeh, 2020, Paduano, 2020, Joshi, 2020). Their intensive care units (ICUs) were filling rapidly toward capacity. The recently part-decommissioned Nightingale Hospital was being rapidly refitted after Christmas to be brought back into use (Triggle, 2020, King, 2020, Goodwin, 2020, Lindsay, 2020). As 2021 opened, case levels were running at over 50,000 a day – exceeding the levels of the first wave peak. Hospitalisations were rising fast (BBC, 2020e, BBC, 2020h, Foster and Parker, 2021). Deaths (a lagging indicator) were still growing relatively slowly. Most of this enhanced contagion was still in the South-East. But by this time, the wave had been spreading out to parts of the West and East Midlands and along the south coast toward Portsmouth and Southampton. The country had been regularly warned about "dark times ahead" for the middle of all the winter. Nothing had prepared us for what was unfolding as Christmas approached.

9.1.2 Behind the curve once more

Yet again, government was slow to react. The warnings from the medical and epidemiology communities had been rising rapidly since the beginning of the month. By December 14th they had risen to a crescendo. The Mayor of London was calling for schools in the capital to be closed (BBC, 2020a). A third wave of Covid-19 was upon us. Following the pattern so familiar to us as we have recorded how the government has operated throughout the crisis, these voices were ignored until the pressure was extreme (Cameron-Chileshe, 2020, Duncan et al., 2020). "Following the science", as we have seen many times through the book, had been side-lined whenever it cut across the apparent need of the government to feed the public with its own messages.

The Prime Minister had declared that it would be “inhuman” to cancel Christmas and was sticking to that line. While advising people to adopt *shorter, smaller celebrations*, he continued with an easing of restrictions that the science community believed to be nothing short of disastrous (BBC, 2020f, Cole et al., 2020, Craig and McGuinness, 2020). On December 16th he firmly resisted calls to “cancel Christmas” though he did indicate that it might be necessary for schools to start up later in January. The Christmas U-turn came on December 19th - resulting in a mass rush to railway stations on 20th December as the capital emptied of those trying to get home before the embargo (Roach, 2020). The eventual outcome was a national lockdown from 6th January 2021 for an indeterminate period with 60,000 new cases reported.

9.1.3 Overpromising and a fast U-turn

Over-promising and then dashing those promises has been such a feature the ten months of our scrutiny of the government’s pandemic actions, that it betrays an inability to learn even the simplest lessons (Eaton, 2020, Editorial, 2020, Heffer, 2020, Parker and Pickard, 2020). A survey conducted early in December found 57% of respondents unwilling to trust the government to manage the crisis (SKY, 2020). In parallel with the worsening conditions surrounding the virus, government was still absorbed with “getting Brexit done”. The month end saw serious blockages at the Port of Dover as the French government reacted sharply to the threat of imports of the new variant virus (BBC, 2020i, Tolhurst, 2020, BBC, 2020c). Meanwhile, the news media were swamped with the “deal -no-deal” story while the virus was extending its grip. CNN on 21st December described Britain as facing an *abyss of overlapping crises* (McGee, 2020).

The Government acted finally with a plan - on 23rd December - with 6 million more people entering the highest level of restrictions (BBC, 2020b, BBC, 2020d). Calls for another lockdown including school closure rose on 27th December. On the very final day of the year, a further 20 million people in England were added to the toughest tier of Covid-19 restrictions - with the Midlands, North East, parts of the North West and parts of the South West prominent among them. We were back to partial lockdown with all of the collateral problems that we documented throughout our essays. This lasted just over a week before it was swept away by a full lockdown.

9.1.4 The schools lead the debate

A great deal of the debate at the end of the year was on the topic of education. Should all schools be closed, should primary schools remain open, should there be differential restrictions from place to place (Richardson, 2020a, Weale, 2020, Richardson, 2020b, Grover, 2020, Gallagher, 2020, Elgot, 2020, BBC, 2020g)? The first announcement on 31st December was that secondary schools across most of England were to remain closed for an extra two weeks for most pupils (DfE, 2020, Stewart and Halliday, 2020). More than a week later the confusion still reigned (BBC, 2021c, Boseley et al., 2021, BBC, 2021d). Selective borough-level closures of primary schools in London were announced as the year opened. In another spectacular U-turn only 24 hours later, the selectivity criterion was removed (Dickens, 2021). With two days to go before the new term opened, parents and teachers across the country were still unsure of what was to happen and with conflicting advice (BBC, 2021d, BBC, 2021b, Martin, 2021). Primary schools outside the restricted areas opened for just one day before the announcement of full closure. The government has repeated this sequence of events time after time, and issue by issue, over the entire period of the pandemic crisis.

9.1.5 Vaccine deployment – another U-turn

Trust was further damaged with a U-turn for the application of the Pfizer vaccine. This was first approved on the basis of a first injection followed by a second booster three weeks later. The logistics of distributing and applying the vaccine were always going to be challenging with controversy as to who gets it first (Neville et al., 2020). This was exacerbated by a sudden decision by the government (approved by the government

scientists, but not by the manufacturer of the vaccine, or the doctors who would give the vaccine) to delay the second dose to 12 weeks, and use existing stocks to give more people a first dose (DAUK, 2020, Davies and Geddes, 2020), or even to ‘mix and match’ vaccines (Mancini and Neville, 2021). Whatever the scientific justification (or not), the disagreements among the health community will hardly have reassured citizens. More confusion and more uncertainty.

9.1.6 One bright spot – self isolation payments arrive

The condition of the most disadvantaged in the face of the virus and the economic shutdown has been a strong theme in the book. There was some good news to report here. We had argued in Chapter 8 that it was foolish not to recognise that what might be keeping people away from testing schemes might be the costs of lay-off to their family if positive. The Liverpool testing study appeared to confirm this. On December 10th, self-isolation payments were attached to the use of the tracing App at the rate of £500 a week. Small though this is, it will be very welcome to those at the margin and certainly better practice for infection control in deprived communities. Studies in December reinforced what we had been saying about the BAME community living in congested conditions – confirming that they faced around 7 times the risk of infection compared to others in the same areas (Maddison and Schwendel, 2020, Jack, 2020, Boseley, 2020, Marmot et al., 2020, Quinn and Pidd, 2020, Romei, 2020).

9.1.7 Brexit done

The good news that lifted the spirits of the nation during what would, without it, have been one of the darkest months since the crisis began, is that the vaccine in its different forms is now with us. It is to be hoped that the light at the end of the tunnel will soon be flooding the nation with renewed hope. Brexit, for what it is worth is also “done”. We are where we are, and it is time to move on to make the best of it. We have resolved ourselves to seek out the positives when we return to writing during January 2021.

9.2 Recovering the wider lessons from the pandemic experience

9.2.1 Remembering the global context

We began our series of papers with a reminder of the international context for the emerging pandemic. After spending so much time on the specifics of the English case, we have to return to the global context. Covid-19 gave us the opportunity fully to take on board how globally interconnected we are and how events in one small corner of the planet can come to affect us all. No more can we ignore what might be happening “*in a faraway country of which we know nothing*” (a remark made about Czechoslovakia by Neville Chamberlain in 1938 that captured why we were so unprepared for the Second World War). What happened in Wuhan also shattered the lives and prospects of millions around the world, but it also needed a sense of history to understand what was going on (ECONOMIST, 2021a, Picken, 2021).

Experts tell us that shocks may well happen again if we are not more internationally watchful and prepared (Mügge, 2021, Ahuja, 2021, Giles, 2021, Deaton, 2021). If we did not fully grasp this before, we certainly have to do so now. The *global ecosystem* is one we humans share and we need to be wary of what else neglect might leave us open to. Post-pandemic, how can we not drastically raise our concern for the planet in the face of global warming?

9.2.2 Valuing human social interaction

In the same vein, Covid-19 taught us that we need to be more aware of the importance to us all of *human social interaction*. Only when it had to be taken away to save us from a calamity, did we come to realise just how important a role *close and social contact with others* plays in our lives. Yes, we sort of knew it –

but who will not look back on 2020 and remember what it was like not to be able to share the same comfortable space with our friends, family, co-workers, fellow supporters, classmates, church friends and so on? As with the global case, the pandemic provides us with a chance to look carefully at those things we value – those things important to our lives and wellbeing that are not mediated through a money marketplace. This is just one aspect of where the experience of living through 2020 (and now it seems most of 2021) must surely have an impact on the *weight we ascribe to what we truly value*, and how we engage with ‘community’ (Youngs, 2020, Ridley, 2021).

9.2.3 Valuing the public realm and the public service

A vital component of the learning from the shock of Covid-19 will surely have been how we value those things that we normally consume in common, as public goods available to all. Because it is hard to measure their value in money terms, we have not found the means to challenge an economic system that under-rates them. We are talking here about public services – items of value that do not appear in measures of national GDP (Mügge, 2021) - but ones so important to our social wellbeing that we cannot do without them. This we should have learned. They are mostly delivered by those *key workers* we clapped for every Thursday night.

These are of course the very same people (outside the NHS) that had their, usually low, wages frozen in the Chancellor’s Autumn Statement. We cannot have it both ways. Either they are so valuable that we have to find a way to reward them properly or government can reach out to cut their real wages when the national accounts need attention. One of the most powerful lessons of the pandemic experience has to be, therefore, that there is something wrong with the way the value of the public services is measured and evaluated and that something should be done about it. We need to remember that it was not always like this and to recover the lessons of more progressive times in the past.

9.2.4 Limits to Neoliberal market forces approaches

This takes us on to a more general issue. Are we still willing - post-pandemic - to accede to the view that money measures of value as traded through market processes are sufficient by themselves to set the basis for *what is valued* in our society? We have learned for the last 50 years to go along with the idea that the market is the arbiter and that the public sector, with its burdensome taxes, is something that should be reduced to a minimum. Has 2020 changed our view that public expenditure is to be rated as somehow inferior to what goes on in the private sector and should be attributed lower value for our society? This idea of “*private sector good; public sector bad*” has had a spectacularly difficult ride over the last year as the stories of “test and trace” and the procurement of PPE have emerged.

In many ways the depressing story we have told in the book, about how the outbreak of Covid-19 was managed in England has roots in an ideological belief that recourse to private business was going to serve the public better. This involved an unchallenged decision to turn away from those already specialised in the field of public health in their public service roles. After what we have lived through, this sort of false proposition about differences in value and effectiveness as between the private and the public sectors is going to be much harder to defend (Giles, 2021).

9.2.5 Centralised policy management unable to cope with complexity

Another ideological position that has failed the test of the pandemic experience is the, once again binary idea, that management from the centre is good and devolved management working more locally from bottom up is bad. People have seen, and suffered from, the clear inability of a centralised system of government to cope with a complex, fast-moving situation. Across the eight papers in the series (and what we have just said about events in December) we have illustrated how grand ideas about “world beating”

this and that and uplifting promises about how things will be, have foundered on contact with reality in context and on-the-ground. Declarations about “following the science” and strapline messages about what people must do to avoid the worst outcomes, tended to work best just once – at the outset.

From that point on, the complexities of the real events as they were projected across a variable landscape, made the simple look banal. Perhaps giving a strong message to the people from the centre was necessary, but, as was learned time after time, it was *very far indeed from being sufficient*. What the people saw around them was the complexity of reality. What they got from the “three podiums” messages and the big graphs looked to be a world away from their practical “need to know” about what was going on around them. To their credit, people generally played the game, but as we look back, there are serious questions to be asked about the whole system of governance in the country.

9.2.6 Accepted political discourses found wanting

Facing a current tendency for contemporary politics to swing toward the popular and to the liberal centrist right, Covid-19 may have done us a favour. *Popular* has not been an adjective well suited the way Trump and Johnson have been seen to manage the pandemic and we have seen how far a *liberal centrist* approach has limits for managing efficiently in the world that now confronts us. As to the issue of “left” or “right”, both have been short of real relevance in the light of events. At the very least, the post-Thatcher generation will have surely grasped that the statement of that time that; “there is no such thing as a society” is a travesty. Coming together as a society, has been revealed as both a protective and a life enhancing force under the pandemic. As to “right wing”, we have seen a Tory government deploy state funds to the support of labour and social protection on an unprecedented scale. This is not something even faintly imaginable just a year ago.

We have witnessed that it is entirely possible for a right-wing government to assemble and spend billions to tackle a problem when it is big and challenging enough. This is something that the drive for fiscal propriety in the last 50 years would have absolutely ruled out. The IMF, and even the OECD, have now sanctioned the approach (Giles, 2021). Future claims that “*the money is not there*” when it comes to public expenditure for what society deems is needed, can never play so strongly again. It was there in 2008, of course, in bailing out the finance sector. But it is there again in 2020, supporting workers on furlough, and the world of global finance capital did not collapse; it thrived. We still have to wait, it seems, for a coherent view from the left on any and all of these *paradigm shattering* discoveries.

9.2.7 The realisation of how powerful the State can be

What we have also discovered through the virus event is that the ability of government to alter people's lives is immense. The ability to influence the economy was, of course, accepted - but within a paradigm that had us willing to believe that government was there simply to support the market and interfere as little as possible beyond that. Covid-19 has just shown us what power and influence is available to government when it decides or is forced to act. This is of course, a double-sided coin. The immense power we can now see so transparently looking back at the pandemic, can be used for good or evil. Who would have believed a year ago, for example, just how much of our personal freedom we would have been willing to forego at the say so of the government? (EP, 2020, Woodcock, 2020, NAO, 2020) This was, done of course, under a liberal minded, Tory government.

The Covid-19 experience in the UK has provided us with a live experiment on how a democratic society goes about coping with a massive, fast moving and complex crisis. It has been challenging but, by right, we have the freedom to be critical of it. When we make comparisons with the more authoritarian and surveillance- based countries to see how the virus was managed - generally more successfully - we need to be aware of the trade-off that exists between gains in efficiency and wider losses in personal freedoms.

We have seen that the modern world is complex, dynamic, and intrinsically interconnected. The oversimplified messages of a charismatic leader could not see us cope here with a crisis on the scale and complexity of the pandemic. For authoritarian surveillance societies, compliance with the view of the “leader” is easier to come by but the price to be paid may have to be a very high one.

9.2.8 The new technologies moulding space and time in selective ways

Across the papers, we have learned a great deal about the technologies of the Fourth Industrial Revolution. What we have clearly been able to see is that the possibilities for remote working have changed key elements of economy and society in dramatic ways. We were lucky to have them at our disposal at the beginning of 2020. We have pointed to the potential of the new technologies to change the entire *space time relationship*. This has profound implications for the future, and the pandemic has served to accelerate processes that were already in place or in prospect. Papers 5 and 7 looked at the balance between the job replacing, and the job creating, possibilities of the new wave and for the need to re-imagine what skills we are going to need and how to take steps to create them. We touched several times on how geography would be moulded by the possibilities of the technologies revealed through the pandemic experiment on how they might be used for better social and environmental outcomes..

The cities will surely experience significant change post-Covid. There will be major changes contingent on the shift of consumer, worker and employer choices and we will need a new geographical imagination to take it all on board. We are already seeing what online shopping is doing to town centre shop-based retail (FT, 2021, ECONOMIST, 2021b, Thomas, 2021, BBC, 2021a). Paper 8 had an important point to make about how the option to use the communications technologies was capable of playing into inequality across social groups. Workers whose activities are based upon the processing of information and content rather than real goods and the provision of services have been able with relatively little difficulty to transform their lives to cope with the pandemic. They have been able to segregate themselves spatially, working from home and leaving those without the same capabilities to experience a greater risk of infection and loss of income from Covid-19. Leaving it to technology and market forces to arbitrate how this plays out will do nothing to slow the rising rate of inequality that we already face or confront the challenge of global warming.

9.2.9 Valuing the contribution of labour

Throughout all eight papers, we have been struck by the socially divisive way the modern labour market works to ascribe value to the time and effort put in by people. We looked in Paper 1 at the rise of the platform economy, and how international pressures and the new possibilities of the internet have led to enhanced demands for flexible workers and low pay. We could not know at the time, how far this segment of workers – already in precarious jobs – would find themselves among the first and worst hit when Covid-19 struck (Rogers and Politi, 2021). In Paper 7 we added some observations on how – alongside retail and hospitality - a similarly flexible group of workers in the arts and cultural sector were taking a hard hit while being outside the job support schemes and receiving less support than in some other countries (Hopkins, 2020, Savage, 2021).

We have already commented on how poorly the contribution of those key workers who kept the system running in the pandemic were rewarded by those who determined their incomes from the public purse. We have described how those who work in the foundation economies of our local communities (in both the private and the public sector) are also invariably low paid and on non-standard contracts. Local demand pressure drives the marketplace, and for the poorer places in the economy, this tends to drive low pay and flexible contracting into many parts of the local economy to feed a debilitating cycle. Across the board, the people we have just been describing are those who suffer most from the ravages of the pandemic. On recovery, is this where we shall still want to be? Has the experience of Covid-19 made us more prepared as a society to challenge the steady creep of the low pay, low skill (and low need for training) component

into the national labour market? Questions for all of us – but what they reveal is the real and present danger of a one-way path to *even greater inequality* in our already unacceptably unequal society.

9.2.10 Inequality laid bare – building back fairer

A popular theme in the early stages of the pandemic was ‘*we are all in this together*’. We found ourselves having to qualify it many times. Yes, the virus confronts everyone without distinction, but we have shown throughout all of the papers that its effects are differentially experienced across the population. A large segment of the workforce and society has experienced the worst of the outcomes. This has been by virtue of their position in the labour market and the housing market, by their health status, by their social needs, and by their access to finance. The hope going forward has to be that we should have acquired a better understanding of why some in our society fare so much worse than others and how much we need to do to remedy it (Deaton, 2021, Johnson et al., 2021).

A strong theme throughout the series of papers has then been, the sheer unfairness of the impact of Covid-19 (Mazzucato, 2020, Wearden, 2020). The most privileged will come out of the pandemic largely untouched by the experience - beyond perhaps having had to forego their foreign holidays and their regular restaurant and theatre visits. Others will have been brought to the very margins of survival; queuing at foodbanks, living on the meagre payments of Universal Credit, finding themselves having to work and to live in high contagion risk environments, suffering the psychological harms of a life of constant stress and uncertainty. It is by any reasonable human standards not fair that this should be so and – to their discredit - a proper recognition of it has been largely absent from government as the pandemic has progressed. The UK entered the pandemic with among the highest levels of inequality in the advanced economies. When it leaves the crisis, that unenviable record will surely be considerably magnified. Whenever the recovery comes it would be “inhuman” (to use again the word deployed by the Prime Minister) to let the blight of inequality get worse.

Going forward, we will start Series Two of our joint papers looking forward at the ways in which we can use the jolt of the Covid-19 experience to develop proposals for a future that will take on board the many lessons the eight papers have allowed us personally to learn. In the conclusions of each of the 2020 papers, we have tried, under the conditions as we saw them at the time, to look at some things we should do in practical terms. This will be the starting point. Beguiling though a return to “how it was” might look from a dark winter lockdown; the old normal was neither safe nor sustainable. We should look not so much for a “new normal” as a “*new beginning*”. That is where *deo volente* we propose to pick up the story in 2021.

9.3 Chapter bibliography

AHUJA, A. 2021. *The pandemic’s darkest hour is yet to come*. Financial Times (London). Published January 4. Available: <https://www.ft.com/content/0d519265-60ea-483e-87fb-9f7f94037031>. [Accessed January 4 2021].

BBC. 2020a. *Covid-19: London mayor calls for schools to close early*. British Broadcasting Corporation (BBC). Published December 14. Available: <https://www.bbc.co.uk/news/uk-england-london-55299848>. [Accessed December 14 2020].

BBC. 2020b. *Covid-19: Six million more people to enter tier 4 on Boxing Day*. British Broadcasting Corporation (BBC). Published December 23. Available: <https://www.bbc.co.uk/news/uk-55428017>. [Accessed December 23 2020].

- BBC. 2020c. *Covid-19: Stranded hauliers face 'a few days' at the border*. British Broadcasting Corporation (BBC). Published December 23. Available: <https://www.bbc.co.uk/news/uk-55420193>. [Accessed December 23 2020].
- BBC. 2020d. *Covid-19: Tougher Covid rules begin for millions in UK*. British Broadcasting Corporation (BBC). Published December 26. Available: <https://www.bbc.co.uk/news/uk-55449596>. [Accessed December 26 2020].
- BBC. 2020e. *Covid-19: Twenty million in England added to toughest tier of restrictions*. British Broadcasting Corporation (BBC). Published December 30. Available: <https://www.bbc.co.uk/news/uk-55489932>. [Accessed December 30 2020].
- BBC. 2020f. *Covid Christmas rules: Boris Johnson calls for shorter, smaller celebrations*. British Broadcasting Corporation (BBC). Published December 16. Available: <https://www.bbc.co.uk/news/uk-55335236>. [Accessed December 16 2020].
- BBC. 2020g. *Covid: 'No logic' to keeping schools open in London*. British Broadcasting Corporation (BBC). Published December 31. Available: <https://www.bbc.co.uk/news/uk-england-london-55496216>. [Accessed December 31 2020].
- BBC. 2020h. *Covid: New Year's Eve warning as millions are told to stay at home*. British Broadcasting Corporation (BBC). Published December 31. Available: <https://www.bbc.co.uk/news/uk-55494800>. [Accessed December 31 2020].
- BBC. 2020i. *Supermarkets try to calm food shortage fears amid border chaos*. British Broadcasting Corporation (BBC). Published December 21. Available: <https://www.bbc.co.uk/news/business-55393076>. [Accessed December 21 2020].
- BBC. 2021a. *Champagne puts fizz in Morrisons' Christmas sales*. British Broadcasting Corporation (BBC). Published January 5. Available: <https://www.bbc.co.uk/news/business-55542633>. [Accessed January 5 2021].
- BBC. 2021b. *Covid school closures 'put children's lives on hold', says Ofsted chief*. British Broadcasting Corporation (BBC). Published January 3. Available: <https://www.bbc.co.uk/news/uk-55333685>. [Accessed January 4 2021].
- BBC. 2021c. *Covid: All London primary schools to stay closed*. British Broadcasting Corporation (BBC). Published January 1. Available: <https://www.bbc.co.uk/news/uk-england-london-55511169>. [Accessed January 1 2021].
- BBC. 2021d. *Schools reopening: Call for closures as Covid cases rise*. British Broadcasting Corporation (BBC). Published January 2. Available: <https://www.bbc.co.uk/news/uk-55511662>. [Accessed January 2 2021].
- BOSELEY, S. 2020. *Pre-existing inequality led to record UK Covid death rate, says health expert*. Guardian (UK). Published December 15. Available: <https://www.theguardian.com/world/2020/dec/15/pre-existing-inequality-led-to-record-uk-covid-deaths-sir-michael-marmot-public-health-chief>. [Accessed December 15 2020].
- BOSELEY, S., ADAMS, R., WEAVER, M., et al. 2021. *Schools U-turn and rising Covid cases crush hopes of new year easing*. Guardian (UK). Published January 1. Available: <https://www.theguardian.com/world/2021/jan/01/schools-u-turn-and-rising-covid-numbers-crush-hopes-of-new-year-easing>. [Accessed January 1 2021].
- CAMERON-CHILESHE, J. 2020. *Johnson warned of third Covid wave by health experts* Financial Times (London). Published December 13. Available: <https://www.ft.com/content/6bb88587-902f-4aba-8147-2277849fc26d>. [Accessed December 14 2020].

- COLE, H., DATHAN, M. & REILLY, J. 2020. *COLD TURKEY: Boris Johnson urges Brits to cut back on Christmas plans as experts say we should eat turkey dinner OUTSIDE with gran*. The Sun (UK). Published December 16. Available: <https://www.thesun.co.uk/news/13500387/boris-johnson-cut-back-christmas-plans/>. [Accessed December 17 2020].
- CRAIG, J. & MCGUINNESS, A. 2020. *PM resisting calls to 'cancel Christmas' - but minister admits families meeting up will not be 'cost free'*. Sky.com. Published December 16. Available: <https://www.msn.com/en-gb/news/coronavirus/pm-resisting-calls-to-cancel-christmas-but-minister-admits-families-meeting-up-will-not-be-cost-free/ar-BB1bXm1x?ocid=mailsignout&li=BB0PWjQ>. [Accessed December 16 2020].
- DAUK. 2020. *Letter to Matt Hancock*. Doctors' Association UK. Published December 31. Available: https://twitter.com/TheDA_UK. [Accessed December 31 2020].
- DAVIES, N. & GEDDES, L. 2020. *Covid vaccine: chief medical officers defend rescheduling of second doses*. Guardian (UK). Published December 31. Available: <https://www.theguardian.com/society/2020/dec/31/covid-vaccine-uk-doctors-criticise-rescheduling-of-second-doses>. [Accessed December 31 2020].
- DEATON, A. 2021. *Covid shows how the state can address social inequality*. Financial Times (London). Published January 5. Available: <https://www.ft.com/content/caa37763-9c71-4f8d-9c29-b16ccf53d780>. [Accessed January 5 2021].
- DFE. 2020. *School contingency plans to be implemented as cases rise*. Department for Education (UK). Published December 30. Available: <https://www.gov.uk/government/news/school-contingency-plans-to-be-implemented-as-cases-rise>. [Accessed December 30 2020].
- DICKENS, J. 2021. *The back-to-school debacle: a week of blundering U-turns*. Schoolsweek.co.uk. Published January 4. Available: <https://schoolsweek.co.uk/the-back-to-school-debacle-a-week-of-blundering-u-turns/>. [Accessed January 5 2021].
- DUNCAN, P., MCMULLAN, L., BLIGHT, G., et al. 2020. *Covid chaos: a timeline of the UK's handling of the coronavirus crisis*. Guardian (UK). Published December 16. Available: <https://www.theguardian.com/world/ng-interactive/2020/dec/16/covid-chaos-a-timeline-of-the-uks-handling-of-the-coronavirus-crisis>. [Accessed December 16 2020].
- EATON, G. 2020. *Boris Johnson overpromised on Christmas – the mistake made throughout the pandemic*. New Statesman. Published December 20. Available: <https://www.newstatesman.com/politics/uk/2020/12/boris-johnson-overpromised-christmas-mistake-made-throughout-pandemic>. [Accessed December 21 2020].
- ECONOMIST. 2021a. *Covid-19: SARS-CoV-2 is following the evolutionary rule book*. Economist. Published January 2. Available: <https://www.economist.com/science-and-technology/2021/01/02/sars-cov-2-is-following-the-evolutionary-rule-book>. [Accessed January 3 2021].
- ECONOMIST. 2021b. *The great mall of China: The next big thing in retail comes with Chinese characteristics*. Economist. Published January 2. Available: <https://www.economist.com/business/2021/01/02/the-next-big-thing-in-retail-comes-with-chinese-characteristics>. [Accessed January 3 2021].
- EDITORIAL. 2020. *Boris Johnson's government is badly behind the curve*. Financial Times (London). Published December 20. Available: <https://www.ft.com/content/9c9e5248-623a-4547-9a23-954a844d459e>. [Accessed December 21 2020].

- ELGOT, J. 2020. *Michael Gove: reopening England's schools will involve 'trade-offs'*. Guardian (UK). Published December 28. Available: <https://www.theguardian.com/world/2020/dec/28/coronavirus-michael-gove-reopening-englands-schools-will-involve-trade-offs>. [Accessed December 28 2020].
- EP. 2020. *European values: COVID-19 emergency measures pose a "risk of abuse of power"*. European Parliament. Published October 27. Available: <https://www.europarl.europa.eu/news/en/press-room/20201024IPR90104/>. [Accessed October 27 2020].
- FOSTER, P. & PARKER, G. 2021. *Covid variant spread rapidly in England even during lockdown, study finds*. Financial Times (London). Published January 1. Available: <https://www.ft.com/content/dc9e53ff-fbda-4be2-8bdf-24ae2cf1c569>. [Accessed January 1 2021].
- FT. 2021. *Prospering in the pandemic: 2020's top 100 companies*. Financial Times (London). Published January 1. Available: <https://www.ft.com/content/f8251e5f-10a7-4f7a-9047-b438e4d7f83a>. [Accessed January 1 2021].
- GALLAGHER, J. 2020. *Schools 'may need to close to control new variant'*. British Broadcasting Corporation (BBC). Published December 24. Available: <https://www.bbc.co.uk/news/health-55437283>. [Accessed December 24 2020].
- GILES, C. 2021. *OECD warns governments to rethink constraints on public spending*. Financial Times (London). Published January 4. Available: <https://www.ft.com/content/7c721361-37a4-4a44-9117-6043afee0f6b>. [Accessed January 4 2021].
- GILES, C. & BURN-MURDOCH, J. 2020. *Jump in London Covid cases raises fears over Christmas gatherings*. Financial Times (London). Published December 15. Available: <https://www.ft.com/content/f111e05c-0586-4650-936e-9d506b8479c4>. [Accessed December 15 2020].
- GOODWIN, H. 2020. *Watch: Hancock denies dormant Nightingale hospitals being 'dismantled'*. London Economics. Published December 30. Available: <https://www.thelondoneconomic.com/politics/watch-hancock-denies-dormant-nightingale-hospitals-being-dismantled/30/12/>. [Accessed December 30 2020].
- GROVER, N. 2020. *Delay school return in England by two weeks over Covid, union urges*. Guardian (UK). Published December 21. Available: <https://www.theguardian.com/education/2020/dec/21/delay-school-return-in-england-by-two-weeks-over-covid-union-urges>. [Accessed December 21 2020].
- HEFFER, S. 2020. *Beware Boris, the rage of people reaching the end of their tether could end in your tears*. Daily Telegraph (London). Published December 20. Available: <https://www.telegraph.co.uk/opinion/2020/12/20/beware-boris-rage-people-reaching-end-tether-could-end-tears/>. [Accessed December 20 2020].
- HOPKINS, V. 2020. *Vienna Philharmonic plays on despite pandemic restrictions*. Financial Times (London). Published December 31. Available: <https://www.ft.com/content/4ae5c760-b425-4cdf-a427-855563da3c22>. [Accessed January 3 2021].
- JACK, A. 2020. *Pandemic creates a 'learning crisis' in parallel to health emergency*. Financial Times (London). Published December 10. Available: <https://www.ft.com/content/5ed0d046-467e-495f-b67e-b1aa0dc23fcc>. [Accessed December 10 2020].
- JOHNSON, P., JOYCE, R. & PLATT, L. 2021. *The IFS Deaton Review of Inequalities: a New Year's message*. Institute for Fiscal Studies. Published January 5. Available: <https://www.ifs.org.uk/inequality/the-ifs-deaton-review-of-inequalities-a-new-years-message/>. [Accessed January 5 2021].

- JOOSHANDEH, J. 2020. *Frontline Fatigue*. Royal Society for the encouragement of Arts, Manufactures and Commerce. Published December 7. Available: <https://www.thersa.org/reports/frontline-fatigue-keyworkers-lockdown>. [Accessed December 18 2020].
- JOSHI, A. 2020. *COVID-19: The situation is bad and it's likely to get worse as NHS faces perfect storm*. Sky.com. Published December 29. Available: <https://news.sky.com/story/covid-19-the-situation-is-bad-and-its-likely-to-get-worse-as-nhs-faces-perfect-storm-12174750>. [Accessed December 29 2020].
- KING, L. 2020. *Inside a dismantled Nightingale hospital NHS England insist it is still 'on standby'*. Daily Mirror (London). Published December 29. Available: <https://www.mirror.co.uk/news/uk-news/inside-dismantled-nightingale-hospital-nhs-23236124>. [Accessed December 30 2020].
- LINDSAY, K. 2020. *MP brands Nightingale hospitals 'expensive Government PR stunt' as hospitals reach 'breaking point'*. The Chronicle (Newcastle). Published December 30. Available: <https://www.chroniclive.co.uk/news/north-east-news/mp-brands-nightingale-hospitals-expensive-19538674>. [Accessed December 30 2020].
- MADDISON, F. & SCHWENDEL, G. 2020. *The financial impact of COVID-19 on disabled people and their carers*. Joseph Rowntree Foundation. Published December 3. Available: <https://www.jrf.org.uk/report/financial-impact-covid-19-disabled-people-and-their-carers>. [Accessed December 9 2020].
- MANCINI, D. P. & NEVILLE, S. 2021. *UK draws up plans to mix coronavirus vaccines*. Financial Times (London). Published January 2. Available: <https://www.ft.com/content/afa31d12-c393-402b-9677-1fb312cfa1cf>. [Accessed January 3 2021].
- MARMOT, M., ALLEN, J., GOLDBLATT, P., et al. 2020. *Build Back Fairer: The COVID-19 Marmot Review*. Institute of Health Equity, University College London. Published December 15. Available: <http://www.instituteoftheequity.org/resources-reports/build-back-fairer-the-covid-19-marmot-review>. [Accessed December 15 2020].
- MARTIN, D. 2021. *Opposition to Leicester schools reopening mounts as Boris Johnson insists it is safe to restart classes*. Leicester Mercury. Published January 3. Available: <https://www.leicestermercury.co.uk/news/leicester-news/opposition-leicester-schools-reopening-mounts-4851190>. [Accessed January 3 2021].
- MAZZUCATO, M. 2020. *Covid exposes capitalism's flaws*. Financial Times (London). Published December 28. Available: <https://www.ft.com/content/9e7b2630-2f67-4923-aa76-0f240a80a9b3>. [Accessed December 28 2020].
- MCGEE, L. 2020. *Boris Johnson has led Britain into an abyss of overlapping crises at the worst possible time*. CNN. Published December 21. Available: <https://edition.cnn.com/2020/12/21/uk/boris-johnson-covid-analysis-intl-gbr/index.html>. [Accessed December 21 2020].
- MCKIE, R., HELM, T. & DOWARD, J. 2020. *Scientists call for UK lockdown after rapid spread of Covid-19 variant*. Guardian (UK). Published December 27. Available: <https://www.theguardian.com/world/2020/dec/27/scientists-call-for-nationwide-lockdown-after-rapid-spread-of-covid-19-variant>. [Accessed December 27 2020].
- MÜGGE, D. 2021. *Scrap 2020 GDP data to find a path out of the harm done by coronavirus* Financial Times (London). Published January 3. Available: <https://www.ft.com/content/d41cdeec-dd4f-444a-9836-496fab56c9f1>. [Accessed January 4 2021].

- NAO. 2020. *The government's approach to test and trace in England – interim report*. National Audit Office (UK). Published December 11. Available: <https://www.nao.org.uk/report/the-governments-approach-to-test-and-trace-in-england-interim-report/>. [Accessed December 11 2020].
- NEVILLE, S., GROSS, A. & BOUNDS, A. 2020. *UK vaccine lottery 'overlooks' vulnerable minorities*. Financial Times (London). Published December 24. Available: <https://www.ft.com/content/2b65aca8-bd0d-4e35-beb2-97239ec1a942>. [Accessed December 24 2020].
- ONS. 2020. *Coronavirus (COVID-19) Infection Survey, UK: 24 December 2020*. Office for National Statistics (UK). Published December 24. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/24december2020>. [Accessed December 24 2020].
- PADUANO, M. 2020. *'Horrendous' ambulance delays at West Midlands hospitals*. British Broadcasting Corporation (BBC). Published December 25. Available: <https://www.bbc.co.uk/news/uk-england-55430397>. [Accessed December 26 2020].
- PARKER, G. & PICKARD, J. 2020. *Christmas debacle caps a bad year for Johnson on Covid-19*. Financial Times (London). Published December 20. Available: <https://www.ft.com/content/e1c33147-c3ec-48f0-9ce1-1a3a3c308454>. [Accessed December 21 2020].
- PICKEN, A. 2021. *How mass vaccinations halted a killer virus in 1950s Glasgow*. British Broadcasting Corporation (BBC). Published January 4. Available: <https://www.bbc.co.uk/news/uk-scotland-glasgow-west-55495972>. [Accessed January 4 2021].
- QUINN, B. & PIDD, H. 2020. *Huge gaps in classroom time for pupils across England, figures show*. Guardian (UK). Published December 15. Available: <https://www.theguardian.com/education/2020/dec/15/huge-gaps-in-classroom-time-for-pupils-across-england-figures-show>. [Accessed December 15 2020].
- RICHARDSON, H. 2020a. *Coronavirus: School attendance plummeted after half-term in England*. British Broadcasting Corporation (BBC). Published December 15. Available: <https://www.bbc.co.uk/news/education-55318035>. [Accessed December 15 2020].
- RICHARDSON, H. 2020b. *Head teachers 'broken' by England's late Covid test plan*. British Broadcasting Corporation (BBC). Published December 18. Available: <https://www.bbc.co.uk/news/education-55354564>. [Accessed December 18 2020].
- RIDLEY, M. 2021. *VAX APPEAL Boris Johnson and Simon Cowell call on Sun readers to join Jabs Army and help beat Covid*. The Sun (UK). Published January 1. Available: <https://www.thesun.co.uk/news/13626407/boris-johnson-simon-cowell-back-jabs-army-appeal/>. [Accessed January 2 2021].
- ROACH, A. 2020. *Queues at London train stations as crowds flee the capital before tough Tier 4 restrictions come into force*. Evening Standard (London). Published December 20. Available: <https://www.standard.co.uk/news/uk/queues-london-train-stations-tier-4-covid-restrictions-b394242.html>. [Accessed December 20 2020].
- ROGERS, T. N. & POLITI, J. 2021. *Gig workers bear the brunt of US labour market slowdown*. Financial Times (London). Published January 1. Available: <https://www.ft.com/content/52edebba-fbb4-482a-ac24-37b587a4ae4e>. [Accessed January 4 2021].

- ROMEI, V. 2020. *How the pandemic is worsening inequality*. Financial Times (London). Published December 31. Available: <https://www.ft.com/content/cd075d91-fafa-47c8-a295-85bbd7a36b50>. [Accessed December 31 2020].
- ROXBY, P. 2020. *Covid: Sharp rises in infection levels in England, says ONS*. British Broadcasting Corporation (BBC). Published December 24. Available: <https://www.bbc.co.uk/news/health-55436598>. [Accessed December 24 2020].
- SAVAGE, M. 2021. *Live music sector needs a 'restart date', the government is told*. British Broadcasting Corporation (BBC). Published January 5. Available: <https://www.bbc.co.uk/news/entertainment-arts-55536355>. [Accessed January 5 2021].
- SKY. 2020. *COVID-19: Majority of British public do not trust government to manage pandemic - survey*. Sky.com. Published December 6. Available: <https://news.sky.com/story/covid-19-majority-of-british-public-do-not-trust-government-to-manage-pandemic-survey-12152793>. [Accessed December 6 2020].
- STEWART, H. & HALLIDAY, J. 2020. *Schools chaos as 21m more people in England face toughest Covid curbs*. Guardian (UK). Published December 31. Available: <https://www.theguardian.com/world/2020/dec/30/millions-more-people-in-england-go-into-tier-4-as-covid-cases-continue-to-soar>. [Accessed December 31 2020].
- THOMAS, D. 2021. *How the pandemic will change the City office*. Financial Times (London). Published January 3. Available: <https://www.ft.com/content/a399c208-7027-4138-abbf-6c08ef818a44>. [Accessed January 3 2021].
- TOLHURST, A. 2020. *Priti Patel Slipped Out That There Are 10 Times More Lorries Stuck In Kent Than The Government Claimed*. Politics Home. Published December 22. Available: <https://www.politicshome.com/news/article/priti-patel-forced-to-admit-there-are-10-times-the-number-of-lorries-stuck-waiting-in-kent-amid-border-row-with-france-than-the-government-claimed>. [Accessed December 22 2020].
- TRIGGLE, N. 2020. *Covid: Will variant force Nightingale hospitals to open?* British Broadcasting Corporation (BBC). Published December 23. Available: <https://www.bbc.co.uk/news/health-55413831>. [Accessed December 23 2020].
- WEALE, S. 2020. *Heads angry after two councils forced to back down over Covid school closures*. Guardian (UK). Published December 15. Available: <https://www.theguardian.com/uk-news/2020/dec/15/greenwich-backs-down-over-plans-to-close-schools-in-face-of-legal-action>. [Accessed December 16 2020].
- WEARDEN, G. 2020. *'I've never seen anything like it': 2020 smashes records in global markets* Guardian (UK). Published December 30. Available: <https://www.theguardian.com/business/2020/dec/30/ive-never-seen-anything-like-it-2020-smashes-records-in-global-markets>. [Accessed December 30 2020].
- WOODCOCK, A. 2020. *New Covid tier system branded 'authoritarian' by influential Tory as backbench revolt looms*. Independent (London). Published November 26. Available: <https://www.independent.co.uk/news/uk/politics/boris-johnson-tiers-revolt-steve-baker-b1762284.html>. [Accessed November 27 2020].
- YOUNGS, R. 2020. *Coronavirus as a Catalyst for Global Civil Society*. Carnegie Europe. Published December 7. Available: <https://carnegieeurope.eu/2020/12/07/coronavirus-as-catalyst-for-global-civil-society-pub-83138>. [Accessed January 5 2021].

10.0 Covid-19 by the day, 2020

10.1 Some Prior Warnings

Heymann, David L, and Guenael Rodier. (2004). *SARS: Lessons from a new disease*. National Center for Biotechnology Information (USA), [Published 2004], [Cited March 23 2020]. <https://www.ncbi.nlm.nih.gov/books/NBK92444/>

BBC. (2004). *Science mapping Sars 'evolution'*. British Broadcasting Corporation (BBC), [Published 2004], [Cited January 30 2004]. <http://news.bbc.co.uk/1/hi/health/3442317.stm>

BBC. (2014). *Mers: Saudis in push to keep Hajj free from deadly virus*. British Broadcasting Corporation (BBC), [Published September 15 2014], [Cited September 15 2014]. <http://www.bbc.co.uk/news/world-middle-east-29147727>

Gates, Bill. (2015). *The next outbreak? We're not ready*. TED Talks, [Published April 3 2015], [Cited April 2 2020]. https://www.youtube.com/watch?v=6Af6b_wyiwl&feature=youtu.be

NHS. (2017). *Improvement Leaders' Guide – Matching Capacity and Demand Process and Systems Thinking*. National Health Service, England, [Published November 30 2017], [Cited April 7 2020]. <https://www.england.nhs.uk/improvement-hub/publication/improvement-leaders-guide-matching-capacity-and-demand-process-and-systems-thinking/>

10.2 January 2020 - the Pandemic Approaches

Coughlan, Sean. (2020a). *Boarding schools warn against virus 'xenophobia'*. British Broadcasting Corporation (BBC), [Published January 27 2020a], [Cited January 28 2020]. <https://www.bbc.co.uk/news/education-51272257>

Cellan-Jones, Rory. (2020a). *Coronavirus: Fake news is spreading fast*. British Broadcasting Corporation (BBC), [Published February 26 2020a], [Cited February 26 2020]. <https://www.bbc.co.uk/news/technology-51646309>

10.3 February 2020 - Becoming Worried

Naughton, John. (2020a). *Slouching towards dystopia: the rise of surveillance capitalism and the death of privacy*. New Statesman, [Published February 26 2020a], [Cited March 3 2020]. <https://www.newstatesman.com/2020/02/slouching-towards-dystopia-rise-surveillance-capitalism-and-death-privacy>

Madrigal, Alexis C. (2020). *The Gig Economy Has Never Been Tested by a Pandemic*. The Atlantic, [Published February 28 2020], [Cited March 29 2020]. <https://www.theatlantic.com/technology/archive/2020/02/coronavirus-gig-economy/607204/>

10.4 March 2020 - The Pandemic Impacts the Country

NEF. (2020). *A Minimum Income Guarantee for the UK*. New Economics Foundation, [Published March 2020], [Cited April 6 2020]. https://neweconomics.org/uploads/files/NEF_MinimumIncomeGuaranteeUK_March_2020.pdf

Romei, Valentina. (2020a). *Income inequality increases in UK*. Financial Times (London), [Published March 5 2020a], [Cited March 6 2020]. <https://www.ft.com/content/06c0933c-5ed8-11ea-b0ab-339c2307bcd4>

Black, Tim. (2020). *Covid-19: people haven't had enough of experts*. Spiked Online, [Published March 11 2020], [Cited March 26 2020]. <https://www.spiked-online.com/2020/03/11/covid-19-people-havent-had-enough-of-experts/>

Butler-Jones, David. (2020). *A forgotten lesson of SARS: The need for public health specialists and expertise*. Globe and Mail (Toronto), [Published March 11 2020], [Cited March 23 2020].

<https://www.theglobeandmail.com/opinion/article-a-forgotten-lesson-of-sars-the-need-for-public-health-specialists-and/>

BBC. (2020a). *Coronavirus: More universities halt teaching and exams*. British Broadcasting Corporation (BBC), [Published March 13 2020a], [Cited March 14 2020]. <https://www.bbc.co.uk/news/education-51880355>

ECONOMIST. (2020a). *Ghost towns: Foot traffic has fallen sharply in cities with big coronavirus outbreaks*. Economist, [Published March 14 2020a], [Cited March 28 2020]. <https://www.economist.com/graphic-detail/2020/03/14/foot-traffic-has-fallen-sharply-in-cities-with-big-coronavirus-outbreaks>

Jacobs, Emma, Andrew Jackson, and Primrose Riordan. (2020). *Global private tutoring booms as coronavirus shuts schools*. Financial Times (London), [Published March 15 2020], [Cited March 23 2020]. <https://www.ft.com/content/bc568336-6537-11ea-b3f3-fe4680ea68b5>

Karnitschnig, Matthew. (2020). *The incompetence pandemic*. Politico.eu, [Published May 16 2020], [Cited May 16 2020]. <https://www.politico.eu/article/coronavirus-europe-incompetence-pandemic/>

Yong, Ed. (2020). *The U.K.'s Coronavirus 'Herd Immunity' Debacle*. The Atlantic, [Published March 16 2020], [Cited March 25 2020]. <https://www.theatlantic.com/health/archive/2020/03/coronavirus-pandemic-herd-immunity-uk-boris-johnson/608065/>

Haynes, Luke. (2020a). *Social distancing could keep UK COVID-19 deaths below 20,000*. GP Online, [Published March 17 2020a], [Cited March 23 2020]. <https://www.gponline.com/social-distancing-keep-uk-covid-19-deaths-below-20000/article/1677392>

Lee, Dave. (2020a). *Gig economy tries to hold on to workers during shutdown*. Financial Times (London), [Published March 17 2020a], [Cited March 22 2020]. <https://www.ft.com/content/494d241c-e8ee-45d2-ba02-7a39edf5d013>

BBC. (2020b). *Coronavirus: UK schools to close from Friday*. British Broadcasting Corporation (BBC), [Published March 18 2020b], [Cited March 18 2020]. <https://www.bbc.co.uk/news/uk-51952314>

Fildes, Nic, and Hannah Murphy. (2020). *EU warns of broadband strain as millions work from home*. Financial Times (London), [Published March 18 2020], [Cited March 18 2020]. <https://www.ft.com/content/b4ab03db-de1f-4f98-bcc2-b09007427e1b>

Manancourt, Vincent. (2020). *Working from home? Your boss is watching*. Politico.eu, [Published March 18 2020], [Cited March 23 2020]. <https://www.politico.eu/article/working-from-home-your-boss-is-watching/>

Braun, Elisa, Laura Kayali, and Paola Tamma. (2020). *Coronavirus pandemic leaves gig economy workers exposed*. Politico.eu, [Published March 19 2020], [Cited March 23 2020]. <https://www.politico.eu/article/coronavirus-pandemic-leaves-gig-economy-workers-exposed/>

ECONOMIST. (2020b). *Mid-term break: How covid-19 is interrupting children's education*. Economist, [Published March 19 2020b], [Cited March 28 2020]. <https://www.economist.com/international/2020/03/19/how-covid-19-is-interrupting-childrens-education>

Milanovic, Branko. (2020). *The Real Pandemic Danger Is Social Collapse*. Foreign Affairs, [Published March 19 2020], [Cited April 16 2020]. <https://www.foreignaffairs.com/articles/2020-03-19/real-pandemic-danger-social-collapse>

Tapsfield, James, Raven Saunt, and David Wilcock. (2020). *EVERY Briton could be paid a universal basic salary by the government regardless of means to help the country through the coronavirus cash crisis*. Daily Mail (London), [Published March 19 2020], [Cited March 20 2020]. <https://www.dailymail.co.uk/news/article-8128807/EVERY-Briton-paid-universal-basic-salary-regardless-means-coronavirus-cash-crisis.html>

DeSilver, Drew. (2020). *Before the coronavirus, telework was an optional benefit, mostly for the affluent few*. Pew Research Center, [Published March 20 2020], [Cited March 22 2020]. <https://www.pewresearch.org/fact-tank/2020/03/20/before-the-coronavirus-telework-was-an-optional-benefit-mostly-for-the-affluent-few/>

Ganesh, Janan. (2020). *A new reckoning for urban life*. Financial Times (London), [Published March 20 2020], [Cited March 21 2020]. <https://www.ft.com/content/27fe4484-6907-11ea-800d-da70cff6e4d3>

Harari, Yuval Noah. (2020). *Yuval Noah Harari: the world after coronavirus*. Financial Times (London), [Published March 20 2020], [Cited March 21 2020]. <https://www.ft.com/content/19d90308-6858-11ea-a3c9-1fe6fedcca75>

Lunn, Pete. (2020). *How behavioural science could help us stop coronavirus*. Prospect Magazine, [Published March 20 2020], [Cited March 25 2020]. <https://www.prospectmagazine.co.uk/science-and-technology/coronavirus-hand-washing-uk-lockdown-sanatizer>

Richardson, Hannah. (2020a). *Coronavirus: Teachers to estimate grades after exams cancelled*. British Broadcasting Corporation (BBC), [Published March 20 2020a], [Cited March 22 2020]. <https://www.bbc.co.uk/news/education-51980831>

Smith, Alexander. (2020a). *Coronavirus: Johnson's libertarian views behind hesitancy to lock down Britain*. NBC News, [Published March 20 2020a], [Cited July 22 2020]. <https://www.nbcnews.com/news/world/coronavirus-johnson-s-libertarian-views-behind-hesitancy-lock-down-britain-n1164786>

McArthur, Tom. (2020). *EasyJet pays founder £60m while asking for UK state aid to deal with coronavirus crisis*. Yahoo, [Published March 21 2020], [Cited March 25 2020]. <https://uk.finance.yahoo.com/news/easy-jet-pays-founder-60-m-while-asking-for-uk-state-aid-to-deal-with-coronavirus-crisis-102451905.html>

BBC. (2020c). *Coronavirus: 'Unprecedented' crowds in Wales despite warnings*. British Broadcasting Corporation (BBC), [Published March 22 2020c], [Cited March 22 2020]. <https://www.bbc.co.uk/news/uk-wales-51994504>

Easton, Mark. (2020a). *Coronavirus: How to behave in an epidemic*. British Broadcasting Corporation (BBC), [Published March 22 2020a], [Cited March 25 2020]. <https://www.bbc.co.uk/news/uk-51991566>

Ahmed, Nafeez. (2020a). *COVID-19 SPECIAL INVESTIGATION. Part One. The Politicised Science that Nudged the Johnson Government to Safeguard the Economy over British Lives*. Byline Times, [Published March 23 2020a], [Cited March 25 2020]. <https://bylinetimes.com/2020/03/23/covid-19-special-investigation-part-one-the-politicised-science-that-nudged-the-johnson-government-to-safeguard-the-economy-over-british-lives/>

Ahmed, Nafeez. (2020b). *COVID-19 SPECIAL INVESTIGATION. Part Three. Behavioural Scientists told Government to use 'Herd Immunity' to Justify Business-As-Usual*. Byline Times, [Published March 23 2020b], [Cited March 25 2020]. <https://bylinetimes.com/2020/03/23/covid-19-special-investigation-part-three-behavioural-scientists-told-government-to-use-herd-immunity-to-justify-business-as-usual/>

Ahmed, Nafeez. (2020c). *COVID-19 SPECIAL INVESTIGATION. Part Two. Government Documents Reveal Concern for 'Economic' and 'Business' Impacts Prevented Early Action*. Byline Times, [Published March 23 2020c], [Cited March 25 2020]. <https://bylinetimes.com/2020/03/23/covid-19-special-investigation-part-two-government-documents-reveal-concern-for-economic-and-business-impacts-prevented-early-action/>

Coughlan, Sean. (2020b). *Unis must stop unconditional offers in virus confusion*. British Broadcasting Corporation (BBC), [Published March 23 2020b], [Cited March 24 2020]. <https://www.bbc.co.uk/news/education-52010858>

Bellis, Richard. (2020). *Rise in antisocial behaviour as schools close for coronavirus*. Northern Echo (Newcastle), [Published March 24 2020], [Cited March 25 2020]. <https://www.thenorthernecho.co.uk/news/18328752.rise-antisocial-behaviour-schools-close-coronavirus/>

Cookson, Clive. (2020). *Coronavirus may have infected half of UK population — Oxford study*. Financial Times (London), [Published March 24 2020], [Cited March 24 2020]. <https://www.ft.com/content/5ff6469a-6dd8-11ea-89df-41bea055720b>

Guardian. (2020a). *London underground packed as services cut to curb Covid-19 spread - video*. Guardian (UK), [Published March 25 2020a], [Cited March 24 2020]. <https://www.theguardian.com/world/video/2020/mar/24/london-underground-packed-as-services-cut-to-curb-covid-19-spread-video>

Islam, Faisal. (2020). *Coronavirus: Self-employed bailout 'problematic'*. British Broadcasting Corporation (BBC), [Published March 24 2020], [Cited March 24 2020]. <https://www.bbc.co.uk/news/business-52021299>

- ONS. (2020a). *Coronavirus and homeworking in the UK labour market: 2019*. Office for National Statistics (UK), [Published March 24 2020a], [Cited April 12 2020]. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/article/s/coronavirusandhomeworkingintheuklabourmarket/2019>
- KINGSFUND. (2020). *What's going on with A&E waiting times?* The King's Fund, [Published March 25 2020], [Cited April 5 2020]. <https://www.kingsfund.org.uk/projects/urgent-emergency-care/urgent-and-emergency-care-mythbusters#waiting-times-in-recent-years>
- Nuki, Paul, and Sarah Newey. (2020). *How to avoid the spread of coronavirus when travelling on public transport*. Daily Telegraph (London), [Published March 25 2020], [Cited May 8 2020]. <https://www.telegraph.co.uk/global-health/science-and-disease/coronavirus-public-transport-how-avoid-catch-travelling-advice-tubes/>
- Sample, Ian. (2020a). *Coronavirus exposes the problems and pitfalls of modelling*. Guardian (UK), [Published March 25 2020a], [Cited March 25 2020]. <https://www.theguardian.com/science/2020/mar/25/coronavirus-exposes-the-problems-and-pitfalls-of-modelling>
- Taleb, Nassim Nicholas, and Yaneer Bar-Yam. (2020). *The UK's coronavirus policy may sound scientific. It isn't*. Guardian (UK), [Published March 25 2020], [Cited March 25 2020]. <https://www.theguardian.com/commentisfree/2020/mar/25/uk-coronavirus-policy-scientific-dominic-cummings>
- Hancock, Alice, and Anatonia Cundy. (2020). *Michelin starred meals delivered to customers in lockdown*. Financial Times (London), [Published March 26 2020], [Cited March 27 2020]. <https://www.ft.com/content/61535042-6e86-11ea-89df-41bea055720b>
- Murphy, Hannah, Daniel Thomas, and Mark Di Stefano. (2020). *Chefs, DJs, teachers: the rise of the lockdown celebrity*. Financial Times (London), [Published March 26 2020], [Cited March 27 2020]. <https://www.ft.com/content/a51fa513-423e-4e93-9097-bef36129d0a4>
- Zahneis, Megan. (2020). *For Many Graduate Students, Covid-19 Pandemic Highlights Inequities*. Chronicle of Higher Education, [Published March 26 2020], [Cited March 29 2020]. <https://www.chronicle.com/article/For-Many-Graduate-Students/248360>
- BBC. (2020d). *Coronavirus: Peak District drone police criticised for 'lockdown shaming'*. British Broadcasting Corporation (BBC), [Published March 27 2020d], [Cited March 27 2020]. <https://www.bbc.co.uk/news/uk-england-derbyshire-52055201>
- Criddle, Cristina. (2020). *Food wholesalers offer online orders to sell stock*. British Broadcasting Corporation (BBC), [Published March 27 2020], [Cited March 28 2020]. <https://www.bbc.co.uk/news/technology-52066764>
- Marsh, Henry. (2020a). *Surgeon Henry Marsh: Covid-19 and the doctor's dilemma*. Financial Times (London), [Published March 27 2020a], [Cited March 28 2020]. <https://www.ft.com/content/00312c48-6e87-11ea-9bca-bf503995cd6f>
- Strochlic, Nina, and Riley D Champine. (2020). *How some cities 'flattened the curve' during the 1918 flu pandemic*. National Geographic, [Published March 27 2020], [Cited March 31 2020]. <https://www.nationalgeographic.com/history/2020/03/how-cities-flattened-curve-1918-spanish-flu-pandemic-coronavirus/>
- Cellan-Jones, Rory. (2020b). *Coronavirus: What if this had happened in 2005?* British Broadcasting Corporation (BBC), [Published March 28 2020b], [Cited March 28 2020]. <https://www.bbc.co.uk/news/technology-52052502>
- Kelion, Leo. (2020a). *Coronavirus: NHS turns to big tech to tackle Covid-19 hot spots*. British Broadcasting Corporation (BBC), [Published March 28 2020a], [Cited March 29 2020]. <https://www.bbc.co.uk/news/technology-52079287>
- Peachey, Kevin. (2020). *Rent-to-own firm Bighthouse calls administrators*. British Broadcasting Corporation (BBC), [Published March 28 2020], [Cited March 29 2020]. <https://www.bbc.co.uk/news/business-52066303>

Coughlan, Sean. (2020c). *University admissions could face emergency controls*. British Broadcasting Corporation (BBC), [Published March 30 2020c], [Cited March 30 2020]. <https://www.bbc.co.uk/news/education-52086932>

Hodgson, Camilla. (2020a). *The mystery of the true coronavirus death rate*. Financial Times (London), [Published March 30 2020a], [Cited March 31 2020]. <https://www.ft.com/content/f3796baf-e4f0-4862-8887-d09c7f706553>

Williams, Richard. (2020a). *Coronavirus: Police turning parts of UK into 'dystopia' after prosecuting shoppers and people driving 'due to boredom'*. Sky.com, [Published March 30 2020a], [Cited March 30 2020]. <https://news.sky.com/story/coronavirus-police-turning-parts-of-uk-into-dystopia-after-prosecuting-people-driving-due-to-boredom-and-shoppers-11965903>

BBC. (2020e). *Coronavirus: Police told to be 'consistent' with lockdown approach*. British Broadcasting Corporation (BBC), [Published March 31 2020e], [Cited March 31 2020]. <https://www.bbc.co.uk/news/uk-52101040>

Eley, Jonathan, and Alice Hancock. (2020). *UK food industry fears waste explosion as coronavirus strains supply chain*. Financial Times (London), [Published March 31 2020], [Cited March 31 2020]. <https://www.ft.com/content/7b6bb903-7688-4520-84f5-9845b0f6bd50>

Leask, Hugh. (2020). *Somerset Capital targeting "once-in-a-generation" EM opportunities*. Hedgeweek, [Published March 31 2020], [Cited April 11 2020]. <https://www.hedgeweek.com/2020/03/31/284340/somerset-capital-targeting-once-generation-em-opportunities>

10.5 April 2020 - The Pandemic challenges 'Strategy'

Boseley, Sarah. (2020a). *Absolutely wrong': how UK's coronavirus test strategy unravelled*. Guardian (UK), [Published April 1 2020a], [Cited April 2 2020]. <https://www.theguardian.com/world/2020/apr/01/absolutely-wrong-how-uk-coronavirus-test-strategy-unravelled>

Treasury. (2020a). *High street benefits from £22 billion grants and business rates package*. HM Treasury (UK), [Published April 1 2020a], [Cited April 6 2020]. <https://www.gov.uk/government/news/high-street-benefits-from-22-billion-grants-and-business-rates-package>

Batty, David. (2020). *Hundreds of university staff to be made redundant due to coronavirus*. Guardian (UK), [Published April 2 2020], [Cited April 2 2020]. <https://www.theguardian.com/education/2020/apr/02/hundreds-of-university-staff-made-redundant-due-to-coronavirus>

Lebrecht, Norman. (2020). *Covid crisis: Artist agencies stand down staff*. Slipped Disc, [Published April 2 2020], [Cited April 5 2020]. <https://slippedisc.com/2020/04/covid-crisis-artist-agencies-lay-off-staff/>

BBC. (2020f). *Coronavirus: London schools use 3D printers for NHS visors*. British Broadcasting Corporation (BBC), [Published April 3 2020f], [Cited April 4 2020]. <https://www.bbc.co.uk/news/av/uk-england-london-52160563/coronavirus-london-schools-use-3d-printers-for-nhs-visors>

Cavendish, Camilla. (2020a). *Universities are pleading for a bailout to paper over their failures*. Financial Times (London), [Published April 3 2020a], [Cited April 4 2020]. <https://www.ft.com/content/7be4f44e-7582-11ea-95fe-fcd274e920ca>

Harford, Tim. (2020a). *How do we value a statistical life?* Financial Times (London), [Published April 3 2020a], [Cited April 3 2020]. <https://www.ft.com/content/e00120a2-74cd-11ea-ad98-044200cb277f>

Harrabin, Roger. (2020). *Coronavirus will transform UK work and travel, says AA*. British Broadcasting Corporation (BBC), [Published April 3 2020], [Cited April 7 2020]. <https://www.bbc.co.uk/news/science-environment-52137968>

McCrum, Dan, Antonia Cundy, Judith Evans, and Alistair Gray. (2020). *The workers with no choice but to keep on with the job*. Financial Times (London), [Published April 3 2020], [Cited April 4 2020]. <https://www.ft.com/content/48e4a311-6a7c-4f80-b541-7893a5f97ea4>

- ECONOMIST. (2020c). *Between tragedies and statistics: The hard choices covid policymakers face*. Economist, [Published April 4 2020c], [Cited April 22 2020]. <https://www.economist.com/briefing/2020/04/04/the-hard-choices-covid-policymakers-face>
- Press, Claire. (2020). *Coronavirus: The NHS workers wearing bin bags as protection*. British Broadcasting Corporation (BBC), [Published April 5 2020], [Cited April 6 2020]. <https://www.bbc.co.uk/news/health-52145140>
- Vincent, Matthew, Tabby Kinder, and Kate Beioley. (2020). *Home working leaves UK businesses vulnerable to fraud*. Financial Times (London), [Published April 5 2020], [Cited April 6 2020]. <https://www.ft.com/content/1ef7ebab-8c33-4d6a-a7c0-66047f73f482>
- Sellgren, Katherine. (2020a). *Free school meal vouchers to continue over Easter holidays*. British Broadcasting Corporation (BBC), [Published April 6 2020a], [Cited April 13 2020]. <https://www.bbc.co.uk/news/education-52183713>
- Ghosh, Ravi. (2020). *Rethinking the city: urban experience and the Covid-19 pandemic*. Verso, [Published April 7 2020], [Cited April 13 2020]. <https://www.versobooks.com/blogs/4648-rethinking-the-city-urban-experience-and-the-covid-19-pandemic>
- Giles, Chris. (2020a). *Deaths from coronavirus far higher in England than first reported*. Financial Times (London), [Published April 7 2020a], [Cited April 7 2020]. <https://www.ft.com/content/c07e267b-7bca-418f-ad9e-8631a29854cb>
- Holland, Lisa. (2020). *Coronavirus: 'Sacrificing the elderly' - Care homes asked to take COVID-19 patients*. Sky.com, [Published April 7 2020], [Cited April 7 2020]. <https://news.sky.com/story/coronavirus-sacrificing-the-elderly-care-homes-asked-to-take-covid-19-patients-11969661>
- Montacute, Rebecca. (2020). *Social Mobility and COVID-19*. Sutton Trust, [Published April 7 2020], [Cited April 9 2020]. <https://www.suttontrust.com/our-research/social-mobility-and-covid-19/>
- Roberts, Michelle. (2020). *Coronavirus: What is the risk to men over 50?* British Broadcasting Corporation (BBC), [Published April 7 2020], [Cited April 8 2020]. <https://www.bbc.co.uk/news/health-52197594>
- SMF. (2020). *Department for Opportunities warns educational divide set to widen during epidemic*. Social Mobility Foundation (UK), [Published April 7 2020], [Cited April 10 2020]. <https://www.socialmobility.org.uk/2020/04/department-for-opportunities-warns-educational-divide-set-to-widen-during-epidemic/>
- Sweeney, Niamh. (2020). *When the Covid-19 crisis finally ends, UK schools must never return to normal*. Guardian (UK), [Published April 7 2020], [Cited April 7 2020]. <https://www.theguardian.com/education/2020/apr/07/when-the-covid-19-crisis-finally-ends-uk-schools-must-never-return-to-normal>
- Weale, Sally. (2020a). *School closures have little impact on spread of coronavirus, study finds*. Guardian (UK), [Published April 7 2020a], [Cited April 7 2020]. <https://www.theguardian.com/education/2020/apr/06/school-closures-have-little-impact-on-spread-of-coronavirus-study>
- Williams, Zoe. (2020b). *We say we value key workers, but their low pay is systematic, not accidental*. Guardian (UK), [Published April 7 2020b], [Cited April 7 2020]. <https://www.theguardian.com/commentisfree/2020/apr/07/value-key-workers-low-pay>
- Hancock, Alice. (2020a). *Hospitality workers hit by service charge exclusion in support scheme*. Financial Times (London), [Published April 8 2020a], [Cited April 8 2020]. <https://www.ft.com/content/3a3e6e69-3b1e-4a27-bafc-c17bab2c5764>
- Ramchandani, Paul. (2020). *Covid-19: We can ward off some of the negative impacts on children*. New Scientist, [Published April 8 2020], [Cited April 8 2020]. <https://www.newscientist.com/article/mg24532773-000-covid-19-we-can-ward-off-some-of-the-negative-impacts-on-children/>
- Richardson, Hannah. (2020b). *Coronavirus: The impossibility of home-schooling a nation*. British Broadcasting Corporation (BBC), [Published April 8 2020b], [Cited April 8 2020]. <https://www.bbc.co.uk/news/education-52151411>

- Banks, James, Heidi Karjalainen, Carol Propper, George Stoye, and Ben Zaranko. (2020). *Economic downturn and wider NHS disruption likely to hit health hard – especially health of most vulnerable*. Institute for Fiscal Studies, [Published April 9 2020], [Cited April 9 2020]. <https://www.ifs.org.uk/publications/14800>
- BBC. (2020g). *Coronavirus: Greater Manchester Police warning after 660 parties shut down*. British Broadcasting Corporation (BBC), [Published April 9 2020g], [Cited April 9 2020]. <https://www.bbc.co.uk/news/uk-england-manchester-52221688>
- BBC. (2020h). *Virus could push half a billion people into poverty*. British Broadcasting Corporation (BBC), [Published April 9 2020h], [Cited April 9 2020]. <https://www.bbc.co.uk/news/business-52211206>
- Easton, Mark. (2020b). *Coronavirus: Significant minority find lockdown 'extremely difficult', poll suggests*. British Broadcasting Corporation (BBC), [Published April 9 2020b], [Cited April 10 2020]. <https://www.bbc.co.uk/news/uk-52228169>
- Gerritsen, John. (2020). *Covid-19: Longer lockdown could harm education - principals*. RNZ New Zealand, [Published April 9 2020], [Cited April 10 2020]. <https://www.rnz.co.nz/news/national/413842/covid-19-longer-lockdown-could-harm-education-principals>
- Henig, Robin Marantz. (2020). *Experts warned of a pandemic decades ago. Why weren't we ready?* National Geographic, [Published April 9 2020], [Cited April 20 2020]. <https://www.nationalgeographic.co.uk/science-and-technology/2020/04/experts-warned-of-pandemic-decades-ago-why-werent-we-ready>
- KCL. (2020). *Life under lockdown: coronavirus in the UK*. Kings College London, [Published April 9 2020], [Cited April 29 2020]. <https://www.kcl.ac.uk/news/life-under-lockdown-coronavirus-in-the-uk>
- Razzall, Katie. (2020). *Coronavirus: 'Worryingly low number' of at-risk children in school*. British Broadcasting Corporation (BBC), [Published April 9 2020], [Cited April 13 2020]. <https://www.bbc.co.uk/news/uk-52228772>
- Shed, Sam, Cristina Criddle, and Guy Lynn. (2020). *Coronavirus: Airbnb restricts UK bookings to coronavirus keyworkers*. British Broadcasting Corporation (BBC), [Published April 9 2020], [Cited April 9 2020]. <https://www.bbc.co.uk/news/technology-52229021>
- Speare-Cole, Rebecca. (2020). *Priti Patel shuts down police threats of harsher lockdown measures like road blocks and checking supermarket trollies*. Evening Standard (London), [Published April 9 2020], [Cited April 10 2020]. <https://www.standard.co.uk/news/uk/police-lockdown-rules-coronavirus-road-blocks-supermarkets-a4411656.html>
- Symonds, Tom. (2020). *Coronavirus: Passport Office staff told to go back to work*. British Broadcasting Corporation (BBC), [Published April 9 2020], [Cited April 9 2020]. <https://www.bbc.co.uk/news/uk-52219930>
- Britton, Jack, Elaine Drayton, and Laura van der Erve. (2020). *Drop in international students would imperil university finances*. Institute for Fiscal Studies, [Published April 10 2020], [Cited April 23 2020]. <https://www.ifs.org.uk/publications/14805>
- Leslie, Jack. (2020). *The economic effects of coronavirus in the UK: Utilising timely economic indicators*. Resolution Foundation, [Published April 10 2020], [Cited April 15 2020]. <https://www.resolutionfoundation.org/publications/the-economic-effects-of-coronavirus-in-the-uk/>
- NHS. (2020). *NHS steps up coronavirus fight with two more Nightingale Hospitals*. National Health Service, England, [Published April 10 2020], [Cited April 15 2020]. <https://www.england.nhs.uk/2020/04/nhs-steps-up-coronavirus-fight-with-two-more-nightingale-hospitals/>
- UUK. (2020). *Package of measures proposed to enable universities to play a critical role in rebuilding the nation*. Universities UK, [Published April 10 2020], [Cited April 10 2020]. <https://www.universitiesuk.ac.uk/news/Pages/Package-of-measures-proposed-to-enable-universities-to-play-a-critical-role-in-rebuilding-the-nation-.aspx>
- Gallagher, James. (2020a). *Coronavirus lockdown: How can we lift restrictions?* British Broadcasting Corporation (BBC), [Published April 11 2020a], [Cited April 11 2020]. <https://www.bbc.co.uk/news/health-52183295>

- GUARDIAN. (2020b). *Call for schools to open in the summer after lockdown* Guardian (UK), [Published April 11 2020b], [Cited April 12 2020]. https://www.theguardian.com/world/2020/apr/11/call-for-schools-to-open-in-the-summer-after-lockdown?CMP=share_btn_link
- Staton, Bethan, and Judith Evans. (2020). *Three million go hungry in UK because of lockdown*. Financial Times (London), [Published April 11 2020], [Cited April 11 2020]. <https://www.ft.com/content/e5061be6-2978-4c0b-aa68-f372a2526826>
- Davies, Harry, David Pegg, and Felicity Lawrence. (2020). *Revealed: value of UK pandemic stockpile fell by 40% in six years*. Guardian (UK), [Published April 12 2020], [Cited April 12 2020]. <https://www.theguardian.com/world/2020/apr/12/revealed-value-of-uk-pandemic-stockpile-fell-by-40-in-six-years>
- Foster, Peter, Bethan Staton, and Naomi Rovnick. (2020). *NHS 'score' tool to decide which patients receive critical care*. Financial Times (London), [Published April 12 2020], [Cited April 13 2020]. <https://www.ft.com/content/d738b2c6-000a-421b-9dbd-f85e6b333684>
- Haynes, Charlie. (2020b). *Coronavirus: Front-line NHS staff 'at risk of PTSD'*. British Broadcasting Corporation (BBC), [Published April 12 2020b], [Cited April 15 2020]. <https://www.bbc.co.uk/news/uk-52258217>
- Townsend, Mark. (2020). *Revealed: surge in domestic violence during Covid-19 crisis*. Guardian (UK), [Published April 12 2020], [Cited April 13 2020]. <https://www.theguardian.com/society/2020/apr/12/domestic-violence-surges-seven-hundred-per-cent-uk-coronavirus>
- Wall, Tom. (2020). *Cramped living conditions may be accelerating UK spread of coronavirus*. Guardian (UK), [Published April 12 2020], [Cited April 12 2020]. <https://www.theguardian.com/world/2020/apr/12/virus-hitting-hardest-modern-equivalent-victorian-slums>
- Rao, Ganesh, and Isla Glaister. (2020). *When will the lockdown end and how do we get out of it?* Sky.com, [Published April 13 2020], [Cited April 13 2020]. <https://www.msn.com/en-gb/news/uknews/when-will-the-lockdown-end-and-how-do-we-get-out-of-it/ar-BB12wPg9?li=BB0PRmx&ocid=mailsignout>
- BBC. (2020i). *Coronavirus: Older people being 'airbrushed' out of virus figures*. British Broadcasting Corporation (BBC), [Published April 14 2020i], [Cited April 14 2020]. <https://www.bbc.co.uk/news/uk-52275823>
- Burns, Judith. (2020a). *Coronavirus: Further delays to children's food vouchers*. British Broadcasting Corporation (BBC), [Published April 14 2020a], [Cited April 15 2020]. <https://www.bbc.co.uk/news/education-52283067>
- Lee, Joyce. (2020b). *Mental health effects of school closures during COVID-19*. The Lancet, [Published April 14 2020b], [Cited April 15 2020]. [https://doi.org/10.1016/S2352-4642\(20\)30109-7](https://doi.org/10.1016/S2352-4642(20)30109-7)
- OBR. (2020). *Coronavirus lockdown to deliver large (but hopefully temporary) shock to the economy and public finances*. Office for Budget Responsibility (UK), [Published April 14 2020], [Cited April 15 2020]. <https://obr.uk/coronavirus-lockdown-to-deliver-large-but-hopefully-temporary-shock-to-the-economy-and-public-finances/>
- Holmes, Emily A, Rory C O'Connor, V Hugh Perry, Irene Tracey, Simon Wessely, Louise Arseneault, Clive Ballard, Helen Christensen, Roxane Cohen Silver, Ian Everall, Tamsin Ford, Ann John, Thomas Kabir, Kate King, Ira Madan, Susan Michie, Andrew K Przybylski, Roz Shafran, Angela Sweeney, Carol M Worthman, Lucy Yardley, Katherine Cowan, Claire Cope, Matthew Hotopf, and Ed Bullmore. (2020). *Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science*. The Lancet, [Published April 15 2020], [Cited April 16 2020]. [https://www.thelancet.com/pdfs/journals/lanpsy/PIIS2215-0366\(20\)30168-1.pdf](https://www.thelancet.com/pdfs/journals/lanpsy/PIIS2215-0366(20)30168-1.pdf)
- Scott, Jim. (2020). *Conditions slammed at Amazon Darlington as new pictures emerge*. Northern Echo (Newcastle), [Published April 15 2020], [Cited April 15 2020]. <https://www.thenorthernecho.co.uk/news/18379146.workers-raise-concerns-amazon-site/>
- Wakefield, Jane. (2020a). *Coronavirus: Intensive care video chat for relatives*. British Broadcasting Corporation (BBC), [Published April 15 2020a], [Cited April 15 2020]. <https://www.bbc.co.uk/news/technology-52281465>

- Wells, Andy. (2020). *Coronavirus: London's NHS Nightingale 'largely empty' and 'only had 19 patients' over Easter*. Yahoo, [Published April 15 2020], [Cited April 15 2020]. <https://uk.news.yahoo.com/nhs-nightingale-coronavirus-easter-084502055.html>
- Williams, Simon N, Christopher J Armitage, Tova Tampe, and Kimberly Dienes. (2020). *Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study*. medRxiv.com, [Published April 15 2020], [Cited April 17 2020]. <https://doi.org/10.1101/2020.04.10.20061267>
- BBC. (2020j). *Coronavirus: Weekly jobless claims hit 5.2 million*. British Broadcasting Corporation (BBC), [Published April 16 2020j], [Cited April 16 2020]. <https://www.bbc.co.uk/news/business-52312367>
- Harford, Tim. (2020b). *Tim Harford: why we fail to prepare for disasters*. Financial Times (London), [Published April 16 2020b], [Cited April 22 2020]. <https://www.ft.com/content/74e5f04a-7df1-11ea-82f6-150830b3b99a>
- Kelion, Leo. (2020b). *Coronavirus: NHS contact tracing app to target 80% of smartphone users*. British Broadcasting Corporation (BBC), [Published April 16 2020b], [Cited April 16 2020]. <https://www.bbc.co.uk/news/technology-52294896>
- Plimmer, Gill. (2020a). *Social care sector warns of collapse without government funding*. Financial Times (London), [Published April 16 2020a], [Cited April 16 2020]. <https://www.ft.com/content/517f1248-5d8c-47a7-8098-763927c7e3d5>
- Rayner, Tom. (2020). *Coronavirus: No 'exit' to full lockdown until there's a vaccine says health minister*. Sky.com, [Published April 16 2020], [Cited April 17 2020]. <https://news.sky.com/story/coronavirus-no-exit-to-full-lockdown-until-theres-a-vaccine-says-health-minister-11973906>
- BBC. (2020k). *Coronavirus: Freeze on pawn, payday and car loan payments*. British Broadcasting Corporation (BBC), [Published April 17 2020k], [Cited April 17 2020]. <https://www.bbc.co.uk/news/business-52321723>
- Gallagher, James. (2020b). *Coronavirus vaccine: Target of a million doses by September, scientists say*. British Broadcasting Corporation (BBC), [Published April 17 2020b], [Cited April 17 2020]. <https://www.bbc.co.uk/news/health-52329659>
- Lewis, Bethan. (2020). *Coronavirus: 'Substantial risk' nurseries will not survive pandemic*. British Broadcasting Corporation (BBC), [Published April 17 2020], [Cited April 17 2020]. <https://www.bbc.co.uk/news/uk-wales-52330712>
- SKY. (2020a). *Coronavirus: Councils in England given an extra £1.6bn to tackle COVID-19 crisis*. Sky.com, [Published April 18 2020a], [Cited April 18 2020]. <https://news.sky.com/story/coronavirus-councils-in-england-given-an-extra-1-6bn-to-tackle-covid-19-crisis-11975203>
- Doward, Jamie. (2020a). *Nearly seven million jobs at risk if lockdown lasts for months*. Guardian (UK), [Published April 19 2020a], [Cited April 19 2020]. <https://www.theguardian.com/world/2020/apr/19/nearly-seven-million-jobs-at-risk-if-lockdown-lasts-for-months>
- Griffith, Gwenfair. (2020). *Coronavirus: Homeschooling in a language you don't speak*. British Broadcasting Corporation (BBC), [Published April 19 2020], [Cited April 26 2020]. <https://www.bbc.co.uk/news/uk-wales-52209165>
- Thomas, Zoe. (2020a). *Coronavirus: Will Covid-19 speed up the use of robots to replace human workers?* British Broadcasting Corporation (BBC), [Published April 19 2020a], [Cited April 19 2020]. <https://www.bbc.co.uk/news/technology-52340651>
- Gibbens, Sarah. (2020). *Goodbye to open office spaces? How experts are rethinking the workplace*. National Geographic, [Published April 30 2020], [Cited May 1 2020]. <https://www.msn.com/en-gb/money/career/goodbye-to-open-office-spaces-how-experts-are-rethinking-the-workplace/ar-BB13rOBv>
- Venkataramkrishnan, Siddarth. (2020a). *Contact-tracing apps must not be used for mass surveillance, warn experts*. Financial Times (London), [Published April 20 2020a], [Cited April 22 2020]. <https://www.ft.com/content/074fa83b-1b95-47ba-86d2-4b71dafa3425>
- Cullinane, Carl, and Rebecca Montacute. (2020). *Impact Brief: School Shutdown*. Sutton Trust, [Published April 21 2020], [Cited April 23 2020]. <https://www.suttontrust.com/our-research/covid-19-and-social-mobility-impact-brief/>

- Frey, Carl Benedikt. (2020). *Covid-19 will only increase automation anxiety*. Financial Times (London), [Published April 21 2020], [Cited April 22 2020]. <https://www.ft.com/content/817228a2-82e1-11ea-b6e9-a94cfd1d9bf>
- Wallis, William. (2020a). *Virus takes toll on Wolverhampton's vulnerable communities*. Financial Times (London), [Published April 21 2020a], [Cited April 22 2020]. <https://www.ft.com/content/3977a67f-c2b5-424c-a8c8-ba636882c7c8>
- Barr, Caelainn, Niko Kommenda, Niamh McIntyre, and Antonio Voce. (2020). *Ethnic minorities dying of Covid-19 at higher rate, analysis shows*. Guardian (UK), [Published April 22 2020], [Cited April 23 2020]. <https://www.theguardian.com/world/2020/apr/22/racial-inequality-in-britain-found-a-risk-factor-for-covid-19>
- Boscia, Stefan. (2020). *Dominic Raab quashes universal basic income proposal*. City AM, [Published April 22 2020], [Cited April 22 2020]. <https://www.cityam.com/dominic-raab-quashes-universal-basic-income-proposal/>
- Foster, Peter. (2020). *Universities' plea for £2bn bailout falls on deaf ears in Treasury*. Financial Times (London), [Published April 22 2020], [Cited April 23 2020]. <https://www.ft.com/content/dc8e2aa4-1c8f-43b9-99c1-e1f87b369b43>
- Richardson, Hannah. (2020c). *Tiny fraction of 'at risk' children attending schools*. British Broadcasting Corporation (BBC), [Published April 22 2020c], [Cited April 22 2020]. <https://www.bbc.co.uk/news/in-pictures-52370968>
- Hill, Amelia. (2020). *Older people could face extended coronavirus lockdown, Lords hears*. Guardian (UK), [Published April 23 2020], [Cited April 23 2020]. <https://www.theguardian.com/world/2020/apr/23/older-people-could-face-extended-coronavirus-lockdown-lords-hears>
- ONS. (2020b). *Furloughing of workers across UK businesses: 23 March 2020 to 5 April 2020*. Office for National Statistics (UK), [Published April 23 2020b], [Cited April 29 2020]. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/furloughingofworkersacrossukbusinesses/23march2020to5april2020>
- SKY. (2020b). *Coronavirus: Coastal and ex-industrial towns 'most economically at risk'*. Sky.com, [Published April 23 2020b], [Cited April 23 2020]. <https://news.sky.com/story/coronavirus-coastal-and-ex-industrial-towns-most-economically-at-risk-11977233>
- Burridge, Tom. (2020a). *Coronavirus: Is social distancing on trains here to stay?* British Broadcasting Corporation (BBC), [Published April 24 2020a], [Cited April 24 2020]. <https://www.bbc.co.uk/news/business-52394835>
- Carrell, Severin. (2020). *How Outer Hebrides were perfectly primed to tackle coronavirus*. Guardian (UK), [Published April 24 2020], [Cited April 24 2020]. <https://www.theguardian.com/uk-news/2020/apr/24/how-outer-hebrides-scotland-perfectly-primed-tackle-coronavirus>
- Coughlan, Sean. (2020d). *'Digital poverty' in schools where few have laptops*. British Broadcasting Corporation (BBC), [Published April 24 2020d], [Cited April 24 2020]. <https://www.bbc.co.uk/news/education-52399589>
- Gould, Matthew. (2020). *Digital contact tracing: protecting the NHS and saving lives*. National Health Service, England, [Published April 24 2020], [Cited April 30 2020]. <https://www.nhsx.nhs.uk/blogs/digital-contact-tracing-protecting-nhs-and-saving-lives/>
- Maqbool, Aleem. (2020). *Coronavirus: 'I can't wash my hands - my water was cut off'*. British Broadcasting Corporation (BBC), [Published April 24 2020], [Cited April 24 2020]. <https://www.bbc.co.uk/news/world-us-canada-52384622>
- Neville, Sarah, Bethan Staton, Helen Warrell, Andy Bounds, and Chris Tighe. (2020). *Nightingale hospitals largely empty as NHS weathers the storm*. Financial Times (London), [Published April 24 2020], [Cited April 24 2020]. <https://www.ft.com/content/09897050-13bc-4ebe-99af-25b8d2ab5781>
- Plimmer, Gill, and Pilita Clark. (2020). *Inside UK care homes: why the system is failing its coronavirus test*. Financial Times (London), [Published April 24 2020], [Cited April 25 2020]. <https://www.ft.com/content/86d9807e-2a47-47b2-8dff-8ab50b16e036>

- Qureshi, Kaveri, Ben Kasstan, Nasar Meer, and Sarah Hill. (2020). *Ethnic minorities and the UK's COVID-19 response*. Global Health Policy Unit, University of Edinburgh, [Published April 24 2020], [Cited April 29 2020]. <http://ghpu.sps.ed.ac.uk/ethnic-minorities-covid-19-uk/>
- Schomberg, William, and David Milliken. (2020). *UK retailers suffer record sales plunge on COVID-19 hit*. Reuters, [Published April 24 2020], [Cited April 24 2020]. <https://uk.reuters.com/article/uk-health-coronavirus-britain-retail/uk-retailers-suffer-record-sales-plunge-on-covid-19-hit-idUKKCN2260NA>
- Shiffman, John. (2020). *Buildings closed by coronavirus face another risk: Legionnaires' disease*. Reuters, [Published April 24 2020], [Cited April 24 2020]. <https://uk.reuters.com/article/uk-health-coronavirus-legionnaires/buildings-closed-by-coronavirus-face-another-risk-legionnaires-disease-idUKKCN2261BG>
- BBC. (2020). *Coronavirus: '2m children face heightened lockdown risk'*. British Broadcasting Corporation (BBC), [Published April 25 2020], [Cited April 25 2020]. <https://www.bbc.co.uk/news/education-52413511>
- Campbell, Chris, Patrick Mathurin, and Hannah Murphy. (2020). *Lockdown lifestyle: changing internet habits during the pandemic*. Financial Times (London), [Published April 25 2020], [Cited April 25 2020]. <https://www.ft.com/content/7854ce4b-7acb-4dad-b175-a4fc81ec9068>
- Chipakupaku, David. (2020). *Coronavirus: Free school meals scheme branded 'disaster' as 'parents struggle to get vouchers'*. Sky.com, [Published April 25 2020], [Cited April 25 2020]. <https://news.sky.com/story/coronavirus-free-school-meals-scheme-branded-disaster-as-parents-struggle-to-get-vouchers-11978035>
- Lyst, Catherine. (2020). *Coronavirus: How do you social distance in schools?* British Broadcasting Corporation (BBC), [Published April 25 2020], [Cited April 25 2020]. <https://www.bbc.co.uk/news/uk-scotland-52412171>
- Bakare, Lanre. (2020). *UK could become 'cultural wasteland' due to coronavirus, say leading artists*. Guardian (UK), [Published April 26 2020], [Cited April 27 2020]. <https://www.theguardian.com/world/2020/apr/26/uk-could-become-cultural-wasteland-due-to-coronavirus-say-artists>
- FT. (2020a). *The thorny dilemma of when to reopen schools*. Financial Times (London), [Published April 26 2020a], [Cited April 26 2020]. <https://www.ft.com/content/ce5186f6-860e-11ea-b872-8db45d5f6714>
- Gruffydd-Jones, Eleanor. (2020). *Coronavirus 'could close half of Wales' care homes'*. British Broadcasting Corporation (BBC), [Published April 26 2020], [Cited April 26 2020]. <https://www.bbc.co.uk/news/uk-wales-52427033>
- Harris, John. (2020a). *Coronavirus has deepened prejudice against older people*. Guardian (UK), [Published April 26 2020a], [Cited April 27 2020]. <https://www.theguardian.com/commentisfree/2020/apr/26/prejudice-older-people-coronavirus>
- Pollock, Allyson M, and Peter Roderick. (2020). *To tackle this virus, local public health teams need to take back control*. Guardian (UK), [Published April 20 2020], [Cited April 26 2020]. <https://www.theguardian.com/world/2020/apr/26/to-tackle-this-virus-local-public-health-teams-need-to-take-back-control>
- Sample, Ian. (2020b). *More than 2m operations cancelled as NHS fights Covid-19*. Guardian (UK), [Published April 26 2020b], [Cited April 26 2020]. <https://www.theguardian.com/society/2020/apr/26/more-than-two-million-operations-cancelled-as-nhs-fights-covid-19>
- BBC. (2020m). *Coronavirus: London's NHS Nightingale 'treated 51 patients'*. British Broadcasting Corporation (BBC), [Published April 27 2020m], [Cited April 28 2020]. <https://www.bbc.co.uk/news/uk-england-london-52448982>
- BBC. (2020n). *Coronavirus: UK film piracy surges during lockdown*. British Broadcasting Corporation (BBC), [Published April 27 2020n], [Cited April 27 2020]. <https://www.bbc.co.uk/news/technology-52443185>
- Blanchard, Sam. (2020a). *SAGE warned the Government 'very early on' in Britain's coronavirus outbreak that care homes would be COVID-19 hotspots, chief scientific adviser reveals*. Daily Mail (London), [Published April 27 2020a], [Cited April 27 2020]. <https://www.dailymail.co.uk/news/article-8261149/SAGE-warned-Government-early-care-homes-risk-COVID-19.html>

- Smith, Matthew. (2020b). *Universal basic income could improve the nation's mental health*. The Conversation, [Published April 27 2020b], [Cited April 29 2020]. <https://theconversation.com/universal-basic-income-could-improve-the-nations-mental-health-123816>
- Clifford, Ben. (2020). *Coronavirus pandemic puts the spotlight on poor housing quality in England*. The Conversation, [Published April 28 2020], [Cited April 29 2020]. <https://theconversation.com/coronavirus-pandemic-puts-the-spotlight-on-poor-housing-quality-in-england-136453>
- Coughlan, Sean. (2020e). *Coronavirus: Furloughed workers offered online skills training*. British Broadcasting Corporation (BBC), [Published April 28 2020e], [Cited April 28 2020]. <https://www.bbc.co.uk/news/education-52447539>
- Giles, Chris, and Gill Plimmer. (2020). *Coronavirus deaths more than twice hospital toll, data indicate*. Financial Times (London), [Published April 28 2020], [Cited April 28 2020]. <https://www.ft.com/content/0ed8ea34-ebc5-4425-b86a-7a29447de57b>
- McGee, Patrick, Hannah Murphy, and Tim Bradshaw. (2020). *Coronavirus apps: the risk of slipping into a surveillance state*. Financial Times (London), [Published April 28 2020], [Cited April 28 2020]. <https://www.ft.com/content/d2609e26-8875-11ea-a01c-a28a3e3fbd33>
- SKY. (2020c). *Coronavirus: 95% of victims in England hospitals had underlying health conditions*. Sky.com, [Published April 28 2020c], [Cited April 28 2020]. <https://news.sky.com/story/coronavirus-95-of-victims-in-england-hospitals-had-underlying-health-conditions-11979733>
- Thomas, Daniel, and Jim Pickard. (2020a). *UK business leaders call for clarity over ending lockdown*. Financial Times (London), [Published April 28 2020a], [Cited April 28 2020]. <https://www.ft.com/content/5eea6b44-dd25-4ef2-91a4-b572e8123a0b>
- Triggle, Nick. (2020a). *Coronavirus: Care home deaths up as hospital cases fall*. British Broadcasting Corporation (BBC), [Published April 28 2020a], [Cited April 28 2020]. <https://www.bbc.co.uk/news/health-52455072>
- Crossland, Michael. (2020). *What coronavirus crisis means for blind and partially sighted people*. The Conversation, [Published April 29 2020], [Cited April 29 2020]. <https://theconversation.com/what-coronavirus-crisis-means-for-blind-and-partially-sighted-people-136991>
- Kleinman, Zoe. (2020a). *PPE 'designed for women' needed on frontline*. British Broadcasting Corporation (BBC), [Published April 29 2020a], [Cited April 29 2020]. <https://www.bbc.co.uk/news/health-52454741>
- Mazelis, Fred. (2020). *Classical musicians, orchestras and opera companies confront COVID-19 lockdown*. World Socialist Web Site, [Published April 29 2020], [Cited May 3 2020]. <https://www.wsws.org/en/articles/2020/04/29/musi-a29.html>
- Moss, Lauren. (2020). *Coronavirus: Thousands of cancer ops at 'Covid-free' hubs*. British Broadcasting Corporation (BBC), [Published April 29 2020], [Cited April 29 2020]. <https://www.bbc.co.uk/news/health-52454831>
- Buchanan, Michael, and Judith Burns. (2020). *Coronavirus: Families still waiting for free school meal vouchers*. British Broadcasting Corporation (BBC), [Published April 30 2020], [Cited April 30 2020]. <https://www.bbc.co.uk/news/education-52488208>
- ECONOMIST. (2020d). *No more pencils, no more books: Closing schools for covid-19 does lifelong harm and widens inequality*. Economist, [Published April 30 2020d], [Cited May 10 2020]. <https://www.economist.com/international/2020/04/30/closing-schools-for-covid-19-does-lifelong-harm-and-widens-inequality>
- Mackintosh, Thomas. (2020). *Coronavirus: Ethnic breakdown of London deaths revealed*. British Broadcasting Corporation (BBC), [Published April 30 2020], [Cited May 1 2020]. <https://www.bbc.co.uk/news/uk-england-london-52453782>
- Symonds, Tom, and Callum May. (2020). *Coronavirus: Tube may be 'overwhelmed' when lockdown is lifted, report warns*. British Broadcasting Corporation (BBC), [Published April 30 2020], [Cited April 30 2020]. <https://www.bbc.co.uk/news/uk-england-london-52481522>

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Dickie, Mure, and Nathalie Thomas. (2020). *Scottish islands resist being made UK's lockdown exit guinea pig*. Financial Times (London), [Published May 1 2020], [Cited May 1 2020].

<https://www.ft.com/content/5b97bf6c-6e9d-42ba-9e68-4738776f2b83>

Easton, Mark. (2020c). *Coronavirus: Do British people still accept the lockdown?* British Broadcasting Corporation (BBC), [Published May 1 2020c], [Cited May 1 2020]. <https://www.bbc.co.uk/news/uk-52495201>

Hall, Ben, and Daniel Dombey. (2020). *Life after lockdown: welcome to the empty-chair economy*. Financial Times (London), [Published May 1 2020], [Cited May 1 2020].

<https://www.ft.com/content/0d86289a-8b96-11ea-a01c-a28a3e3fbd33>

ONS. (2020c). *Deaths involving COVID19 by local area and deprivation*. Office for National Statistics (UK), [Published May 1 2020c], [Cited May 1 2020].

<https://www.ons.gov.uk/releases/spatialanalysisondeathsregisteredinvolvingcovid19>

ONS. (2020d). *Deaths involving COVID-19 by local area and socioeconomic deprivation: deaths occurring between 1 March and 17 April 2020*. Office for National Statistics (UK), [Published May 1 2020d], [Cited May 1 2020].

<https://www.ons.gov.uk/releases/spatialanalysisondeathsregisteredinvolvingcovid19>

Thomas, Daniel, Stephen Morris, and Andrew Edgecliffe-Johnson. (2020). *The end of the office? Coronavirus may change work for ever*. Financial Times (London), [Published May 1 2020], [Cited May 1 2020]. <https://www.ft.com/content/1b304300-0756-4774-9263-c97958e0054d>

Jenrick, Robert. (2020). *Queues build up as some tips reopen for first time since lockdown*. ITN News, [Published May 2 2020], [Cited May 3 2020]. <https://www.itv.com/news/2020-05-02/queues-build-up-as-some-tips-reopen-for-first-time-since-lockdown/>

Collingridge, John. (2020). *Coronavirus commuting: minding the two-metre gap will cut train capacity to 15%*. Sunday Times (London), [Published May 3 2020], [Cited May 3 2020].

<https://www.thetimes.co.uk/edition/news/coronavirus-commuting-minding-the-two-metre-gap-will-cut-train-capacity-to-15-h79grsvmt>

SKY. (2020d). *Coronavirus: Older people will 'rebel and risk prison' if forced to be locked down longer*.

Sky.com, [Published May 3 2020d], [Cited May 3 2020]. <https://news.sky.com/story/coronavirus-older-people-will-rebel-and-risk-prison-if-forced-to-be-locked-down-longer-11982459>

BBC. (2020o). *Coronavirus lockdown: Inventive routes back to normal life*. British Broadcasting Corporation (BBC), [Published May 4 2020o], [Cited May 5 2020]. <https://www.bbc.co.uk/news/world-52470472>

BBC. (2020p). *Coronavirus: Money worries in pandemic drive surge in anxiety*. British Broadcasting Corporation (BBC), [Published May 4 2020p], [Cited May 4 2020]. <https://www.bbc.co.uk/news/uk-52527135>

BBC. (2020q). *Sir Cameron Mackintosh: 'Theatres could be closed until next year'*. British Broadcasting Corporation (BBC), [Published May 4 2020q], [Cited May 4 2020].

<https://www.bbc.co.uk/news/entertainment-arts-52525380>

Mathers, Matt. (2020a). *Millions of children not getting enough food during lockdown*. Independent

(London), [Published May 4 2020a], [Cited May 4 2020]. <https://www.independent.co.uk/life-style/health-and-families/coronavirus-food-children-hunger-lockdown-a9497166.html>

ONS. (2020e). *Personal well-being and COVID-19*. Office for National Statistics (UK), [Published May 4 2020e], [Cited May 4 2020].

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19roundup/2020-03-26>

Picheta, Rob. (2020). *Coronavirus is causing a flurry of plastic waste. Campaigners fear it may be permanent*. CNN, [Published May 4 2020], [Cited May 4 2020].

<https://edition.cnn.com/2020/05/04/world/coronavirus-plastic-waste-pollution-intl/index.html>

- Tuddenham, Robin, and Chris Ham. (2020). *Councils must be at the heart of contact tracing*. Local Government Chronicle, [Published May 4 2020], [Cited May 5 2020]. <https://www.lgcplus.com/politics/coronavirus/robin-tuddenham-chris-ham-councils-must-be-at-the-heart-of-contact-tracing-04-05-2020/>
- Davis, Nicola. (2020). *UK can avoid Covid-19 second wave with test, track and trace, says Vallance*. Guardian (UK), [Published May 5 2020], [Cited May 5 2020]. <https://www.theguardian.com/world/2020/may/05/covid-19-second-wave-may-be-avoided-with-track-and-trace-says-uk-science-chief>
- Grierson, Jamie. (2020a). *Just 273 people who arrived in UK in run-up to lockdown were quarantined*. Guardian (UK), [Published May 5 2020a], [Cited May 5 2020]. <https://www.theguardian.com/world/2020/may/05/just-273-people-arriving-in-uk-in-run-up-to-lockdown-quarantined>
- Grierson, Jamie. (2020b). *UK government under fire after 'big influx' of Covid-19 cases from Europe revealed*. Guardian (UK), [Published May 5 2020b], [Cited May 6 2020]. <https://www.theguardian.com/world/2020/may/05/just-273-people-arriving-in-uk-in-run-up-to-lockdown-quarantined>
- NEU. (2020a). *NEU snapshot survey of over 2,000 school staff shows significant concerns about effectiveness of present social-distancing measures in schools*. National Education Union (UK), [Published May 5 2020a], [Cited May 6 2020]. <https://neu.org.uk/press-releases/neu-covid-19-survey>
- Pidd, Helen, Rowena Mason, and Severin Carrell. (2020). *Coronavirus lockdown in Lake District 'fraying at the edges'*. Guardian (UK), [Published May 5 2020], [Cited May 5 2020]. <https://www.theguardian.com/world/2020/may/04/lake-district-coronavirus-lockdown-north-east-second-wave-risk>
- Venkataramakrishnan, Siddarth. (2020b). *Lockdown drives boom in healthcare apps*. Financial Times (London), [Published May 5 2020b], [Cited May 6 2020]. <https://www.ft.com/content/8d672ee1-5872-4d50-ab4e-4d503832af27>
- Blackley, Nelson. (2020). *Expert Blog: Future of UK Shopping Centres in doubt as COVID-19 impact adds to their problems*. Nottingham Trent University, [Published May 6 2020], [Cited May 6 2020]. <https://www.ntu.ac.uk/about-us/news/news-articles/2020/04/future-of-uk-shopping-centres-in-doubt-covid-19-impact>
- Adams, Richard. (2020a). *Families sue UK government over 'little or no education' for their children*. Guardian (UK), [Published May 7 2020a], [Cited May 8 2020]. <https://www.theguardian.com/education/2020/may/07/families-sue-government-over-little-or-no-education-for-their-children>
- BBC. (2020r). *Coronavirus: Bank holiday warning to avoid beauty spots*. British Broadcasting Corporation (BBC), [Published May 7 2020r], [Cited May 7 2020]. <https://www.bbc.co.uk/news/uk-england-52574395>
- Burns, Judith. (2020b). *Coronavirus: 'Humiliation' as school meal vouchers fail at till*. British Broadcasting Corporation (BBC), [Published May 7 2020b], [Cited May 8 2020]. <https://www.bbc.co.uk/news/education-52551464>
- Hern, Alex, and Kate Proctor. (2020). *UK may ditch NHS contact-tracing app for Apple and Google model*. Guardian (UK), [Published May 7 2020], [Cited May 7 2020]. <https://www.theguardian.com/technology/2020/may/07/uk-may-ditch-nhs-contact-tracing-app-for-apple-and-google-model>
- Rawlinson, Kevin. (2020). *Coronavirus PPE: all 400,000 gowns flown from Turkey for NHS fail UK standards*. Guardian (UK), [Published May 7 2020], [Cited May 7 2020]. <https://www.theguardian.com/world/2020/may/07/all-400000-gowns-flown-from-turkey-for-nhs-fail-uk-standards>
- Sabbagh, Dan. (2020). *Ministers' unfulfilled coronavirus promises eroding UK public trust*. Guardian (UK), [Published May 7 2020], [Cited May 8 2020]. <https://www.theguardian.com/world/2020/may/07/ministers-unfulfilled-coronavirus-promises-eroding-uk-public-trust>
- Stewart, Heather, Kate Proctor, and Ian Sample. (2020). *No 10 battles to regain control of lockdown messaging amid fierce criticism*. Guardian (UK), [Published May 7 2020], [Cited May 7 2020].

<https://www.theguardian.com/uk-news/2020/may/07/no-10-scrambles-to-control-amid-fierce-criticism-of-lockdown-mixed-messages>

Brindle, David. (2020). *Public health directors in England are asked to take charge of Covid-19 testing*. Guardian (UK), [Published May 8 2020], [Cited May 8 2020].

<https://www.theguardian.com/world/2020/may/08/public-health-directors-take-charge-covid-19-testing-care-homes>

Duncan, Pamela, and Denis Campbell. (2020). *More people dying at home during Covid-19 pandemic – UK analysis*. Guardian (UK), [Published May 8 2020], [Cited May 8 2020].

<https://www.theguardian.com/society/2020/may/08/more-people-dying-at-home-during-covid-19-pandemic-uk-analysis>

Lewis, Paul, and David Conn. (2020). *UK scientists condemn 'Stalinist' attempt to censor Covid-19 advice*. Guardian (UK), [Published May 8 2020], [Cited May 8 2020].

<https://www.theguardian.com/world/2020/may/08/revealed-uk-scientists-fury-over-attempt-to-censor-covid-19-advice>

Neville, Sarah, Tim Bradshaw, and Helen Warrell. (2020). *UK starts to build second contact tracing app*. Financial Times (London), [Published May 8 2020], [Cited May 8 2020].

<https://www.ft.com/content/446df516-4ec5-4c06-b39f-dd89ea5f6f0b>

Burridge, Tom. (2020b). *UK 'to bring in 14-day quarantine' for air passengers*. British Broadcasting Corporation (BBC), [Published May 9 2020b], [Cited May 10 2020]. <https://www.bbc.co.uk/news/business-52594023>

Helm, Toby, Robin McKie, and Michael Savage. (2020). *Trades unions tell Johnson: no return to work until we feel safe*. Guardian (UK), [Published May 9 2020], [Cited May 10 2020].

<https://www.theguardian.com/world/2020/may/09/trade-union-leaders-no-return-to-work-health-safety-unison-unite-tuc>

Walawalkar, Aaron. (2020). *Back to work: 'capacity of transport network will be down by 90%'*. Guardian (UK), [Published May 9 2020], [Cited May 10 2020].

<https://www.theguardian.com/world/2020/may/09/back-to-work-capacity-of-transport-network-will-be-down-by-90>

BBC. (2020s). *Coronavirus: Shops should reopen based on safety - retail chief*. British Broadcasting Corporation (BBC), [Published May 10 2020s], [Cited May 10 2020].

<https://www.bbc.co.uk/news/business-52603183>

Ferguson, Donna. (2020). *Uncertainty over schools reopening takes huge toll on headteachers*. Guardian (UK), [Published May 10 2020], [Cited May 10 2020].

<https://www.theguardian.com/education/2020/may/10/uncertainty-over-schools-reopening-takes-huge-toll-on-headteachers>

Butterly, Amelia. (2020). *Coronavirus anxiety: How to cope with life after lockdown*. British Broadcasting Corporation (BBC), [Published May 11 2020], [Cited May 11 2020]. <https://www.bbc.co.uk/news/health-52443108>

ONS. (2020f). *Which occupations have the highest potential exposure to the coronavirus (COVID-19)?* Office for National Statistics (UK), [Published May 11 2020f], [Cited May 11 2020].

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/whichoccupationshavethehighestpotentialexposuretothecoronaviruscovid19/2020-05-11>

BBC. (2020t). *Coronavirus: Bus firms face struggle as lockdown eases*. British Broadcasting Corporation (BBC), [Published May 12 2020t], [Cited May 12 2020]. <https://www.bbc.co.uk/news/uk-england-52621747>

Butcher, Ben, and Ben Milne. (2020). *Coronavirus: How will transport need to change?* British Broadcasting Corporation (BBC), [Published May 12 2020], [Cited May 13 2020].

<https://www.bbc.co.uk/news/explainers-52534135>

Inagaki, Kana. (2020). *Coronavirus will usher in the industrial robots* Financial Times (London), [Published May 12 2020], [Cited August 28 2020]. <https://www.ft.com/content/fa81806d-8ddf-4f2a-9a5a-de6c96844373>

- Treasury. (2020b). *Chancellor extends furlough scheme until October* HM Treasury (UK), [Published May 12 2020b], [Cited June 1 2020]. <https://www.gov.uk/government/news/chancellor-extends-furlough-scheme-until-october>
- Wisniewska, Aleksandra, and Billy Ehrenberg-Shannon. (2020). *Britain on the move even before Boris Johnson eased lockdown*. Financial Times (London), [Published May 12 2020], [Cited May 12 2020]. <https://www.ft.com/content/cc70d690-99a6-4056-9ebe-d0b39c40a359>
- BBC. (2020u). *Coronavirus: Social distancing 'impossible' on London commute*. British Broadcasting Corporation (BBC), [Published May 13 2020u], [Cited May 13 2020]. <https://www.bbc.co.uk/news/uk-52645366>
- Ziady, Hanna. (2020a). *2020 is a catastrophe for tourism businesses. Here's what the industry needs to get back on its feet*. CNN, [Published May 13 2020a], [Cited May 13 2020]. <https://edition.cnn.com/2020/05/13/business/travel-and-tourism-recovery-coronavirus/index.html>
- Coughlan, Sean. (2020f). *Coronavirus: Unions demand assurances over 1 June school plan*. British Broadcasting Corporation (BBC), [Published May 15 2020f], [Cited May 15 2020]. <https://www.bbc.co.uk/news/education-52669441>
- Ford, Jonathan. (2020). *Is it safe to go back to school?* Financial Times (London), [Published May 15 2020], [Cited May 17 2020]. <https://www.ft.com/content/3156d826-3546-46cc-8de8-1c7a950bb558>
- Hancock, Alice, and Alistair Gray. (2020). *Tempting back the terrified: shops and restaurants try to reassure customers*. Financial Times (London), [Published May 15 2020], [Cited May 15 2020]. <https://www.ft.com/content/074bf736-a874-42a4-9e08-041bad7faf83>
- ONS. (2020g). *Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 1 May 2020 and registered up to 9 May 2020 (provisional)*. Office for National Statistics (UK), [Published May 15 2020g], [Cited May 15 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinvolvingcovid19inthecaresectorenglandandwales/deathsoccurringupto1may2020andregisteredupto9may2020provisional>
- Pidd, Helen. (2020a). *Barrow residents demand to know if shipyard is coronavirus hotspot*. Guardian (UK), [Published May 15 2020a], [Cited May 21 2020]. <https://www.theguardian.com/world/2020/may/15/barrow-residents-demand-know-shipyard-coronavirus-hotspot>
- SKY. (2020e). *Coronavirus could be 'wiped out in London in weeks' - but what's the picture in the rest of England?* Sky.com, [Published May 15 2020e], [Cited May 15 2020]. <https://news.sky.com/story/coronavirus-virus-could-be-wiped-out-in-london-in-weeks-as-rate-of-infection-is-slowing-say-researchers-11988579>
- SKY. (2020f). *Coronavirus: London's congestion charge to rise 30% next month after huge TfL bailout*. Sky.com, [Published May 15 2020f], [Cited May 15 2020]. <https://news.sky.com/story/coronavirus-londons-congestion-charge-to-rise-30-next-month-after-huge-tfl-bailout-11988726>
- Telling, Oliver. (2020). *Hate crime against 'Oriental' people in London soars, police data show*. Financial Times (London), [Published May 15 2020], [Cited May 15 2020]. <https://www.ft.com/content/52e7062b-0cb2-448a-b944-05b3025d4542>
- BBC. (2020v). *Coronavirus: Schools safe to reopen, Michael Gove insists*. British Broadcasting Corporation (BBC), [Published May 17 2020v], [Cited May 17 2020]. <https://www.bbc.co.uk/news/education-52697488>
- Wooding, David. (2020). *CLASS WAR: Militant union boss blocking re-opening of schools is linked to far-Left group that supported Jeremy Corbyn*. The Sun (UK), [Published May 17 2020], [Cited May 20 2020]. <https://www.thesun.co.uk/news/11641145/union-boss-far-left-campaign-group/>
- Andrew, Alison, Sarah Cattan, Monica Costa Dias, Christine Farquharson, Lucy Kraftman, Sonya Krutikova, Angus Phimister, and Almudena Sevilla. (2020a). *Learning during the lockdown: real-time data on children's experiences during home learning*. Institute for Fiscal Studies, [Published May 18 2020a], [Cited May 18 2020]. <https://www.ifs.org.uk/publications/14848>

- Cellan-Jones, Rory. (2020c). *Coronavirus: Isle of Wight contact-tracing app trial - a mixed verdict so far*. British Broadcasting Corporation (BBC), [Published May 18 2020c], [Cited May 18 2020]. <https://www.bbc.co.uk/news/technology-52709568>
- Ahuja, Anjana. (2020a). *UK's confused claim to 'follow the science' eroded public trust*. Financial Times (London), [Published May 19 2020a], [Cited May 20 2020]. <https://www.ft.com/content/66413e62-98e7-11ea-871b-edeb99a20c6e>
- Foster, Peter, and Bethan Staton. (2020a). *How coronavirus is widening the gap in schools*. Financial Times (London), [Published May 19 2020a], [Cited May 19 2020]. <https://www.ft.com/content/50fcc605-674d-4630-9718-d3890eccffbf>
- SKY. (2020g). *Coronavirus: Businesses told to flush out water supply before reopening to avoid potentially deadly Legionella bacteria*. Sky.com, [Published May 19 2020g], [Cited May 19 2020]. <https://news.sky.com/story/coronavirus-businesses-told-to-flush-out-water-supply-before-reopening-to-avoid-potentially-deadly-legionella-bacteria-11990957>
- Adams, Richard. (2020b). *UK universities facing £760m hit as one in five students plan to defer*. Guardian (UK), [Published May 20 2020b], [Cited May 20 2020]. <https://www.theguardian.com/education/2020/may/20/uk-universities-facing-760m-hit-one-in-five-students-plan-defer>
- BBC. (2020w). *Coronavirus: UK to trace contacts of 10,000 new cases from 1 June*. British Broadcasting Corporation (BBC), [Published May 20 2020w], [Cited May 20 2020]. <https://www.bbc.co.uk/news/uk-52741331>
- BBC. (2020x). *England beaches gridlock caused by cars 'from all over country'*. British Broadcasting Corporation (BBC), [Published May 20 2020x], [Cited May 20 2020]. <https://www.bbc.co.uk/news/uk-england-devon-52742519>
- McGuinness, Alan. (2020a). *Coronavirus: NHS prioritised over social care during early stages of outbreak, minister says*. Sky.com, [Published May 20 2020a], [Cited May 20 2020]. <https://news.sky.com/story/coronavirus-nhs-prioritised-over-social-care-during-early-stages-of-outbreak-minister-says-11991378>
- Weale, Sally, and Kate Proctor. (2020). *Government rows back on 1 June English primary schools reopening plan*. Guardian (UK), [Published May 20 2020], [Cited May 20 2020]. <https://www.theguardian.com/world/2020/may/20/government-rows-back-on-1-june-english-primary-schools-reopening-plan>
- BBC. (2020y). *NHS fees to be scrapped for overseas health staff and care workers*. British Broadcasting Corporation (BBC), [Published May 21 2020y], [Cited May 21 2020]. <https://www.bbc.co.uk/news/uk-politics-52761052>
- Kinder, Tabby, Peter Foster, and Michael Pooler. (2020). *Ventilator challenge to cost government £450m despite cancellations*. Financial Times (London), [Published May 21 2020], [Cited May 24 2020]. <https://www.ft.com/content/8df85bb4-4e2e-41f3-bb51-c7d046d23455>
- Neville, Sarah, Helen Warrell, and Laura Hughes. (2020). *Britain's tracing army sits idle as lockdown deadline looms*. Financial Times (London), [Published May 21 2020], [Cited May 21 2020]. <https://www.ft.com/content/eab724db-d63e-4d4c-aeab-35512a3b7696>
- SKY. (2020h). *Coronavirus: Confidence in government drops as under 30s admit defying lockdown rules, study finds*. Sky.com, [Published May 21 2020h], [Cited May 21 2020]. <https://news.sky.com/story/coronavirus-confidence-in-government-drops-as-under-30s-admit-defying-lockdown-rules-study-finds-11992057>
- Staton, Bethan, Andrew Bounds, and Chris Tighe. (2020). *Public transport struggles to cater for the few*. Financial Times (London), [Published May 21 2020], [Cited May 21 2020]. <https://www.ft.com/content/a25d7eb2-3ca8-40e1-95e5-cb885210f818>
- BBC. (2020z). *Coronavirus: Quarantine plans for UK arrivals unveiled*. British Broadcasting Corporation (BBC), [Published May 22 2020z], [Cited May 22 2020]. <https://www.bbc.co.uk/news/uk-52774854>
- Blanchard, Sam. (2020b). *Government scientific adviser says Britain's two metre social distancing rule is unnecessary and based on 'very fragile' evidence*. Daily Mail (London), [Published May 22 2020b], [Cited

May 23 2020]. <https://www.dailymail.co.uk/news/article-8339837/Government-scientist-says-2m-social-distancing-rule-based-fragile-evidence.html>

Hodgson, Camilla. (2020b). *Schools in England should not reopen on June 1, warn scientists*. Financial Times (London), [Published May 22 2020b], [Cited May 22 2020]. <https://www.ft.com/content/9708a8f0-4ba1-4857-9305-5bf190e2403>

Ingram, Simon. (2020). *British zoos are starving to death – and the most historic of all may be about to slip away*. National Geographic, [Published May 22 2020], [Cited June 5 2020]. <https://www.nationalgeographic.co.uk/animals/2020/05/british-zoos-are-starving-to-death-and-the-most-iconic-of-all-may-be-about-to-slip>

PA. (2020a). *Let's stop clapping for the NHS, says woman who started the ritual*. Guardian (UK), [Published May 22 2020a], [Cited May 23 2020]. <https://www.theguardian.com/world/2020/may/22/lets-stop-clapping-for-the-nhs-says-woman-who-started-the-ritual>

Plimmer, Gill. (2020b). *'We don't get paid for empty beds': the crisis facing UK care home operators*. Financial Times (London), [Published May 22 2020b], [Cited May 25 2020]. <https://www.ft.com/content/410afc04-206b-46c7-90fe-764f2109e734>

Spencer, Caleb. (2020). *Coronavirus: Digital poverty 'a threat to children in care'*. British Broadcasting Corporation (BBC), [Published May 22 2020], [Cited May 22 2020]. <https://www.bbc.co.uk/news/uk-wales-52654426>

Wood, Zoe. (2020). *More than 30,000 pubs and restaurants 'may not reopen after lockdown'*. Guardian (UK), [Published May 22 2020], [Cited May 22 2020]. <https://www.theguardian.com/business/2020/may/22/more-than-30000-pubs-and-restaurants-could-stay-shut-after-lockdown-coronavirus>

Cellan-Jones, Rory. (2020d). *Coronavirus contact tracing: My new skill*. British Broadcasting Corporation (BBC), [Published May 23 2020d], [Cited May 23 2020]. <https://www.bbc.co.uk/news/technology-52772436>

Coughlan, Sean, and Hannah Richardson. (2020). *Teachers' unions 'unconvinced' safe to open schools*. British Broadcasting Corporation (BBC), [Published May 23 2020], [Cited May 23 2020]. <https://www.bbc.co.uk/news/education-52771515>

Elsom, Jack, and Jemima Carr. (2020). *Coronavirus pandemic could be over in the UK by September 30: Scientific model predicts virus will continue its steady decline with NO second wave*. Daily Mail (London), [Published May 24 2020], [Cited May 24 2020]. <https://www.dailymail.co.uk/news/article-8351237/Coronavirus-completely-wiped-Britain-September-30.html>

Kelly, Jemima, and Clive Cookson. (2020). *'Politicised nature' of lockdown debate delays Imperial report*. Financial Times (London), [Published May 23 2020], [Cited May 23 2020]. <https://www.ft.com/content/41e98ccb-a39c-4f88-b444-74d50a76c383>

Jeffrey, Maximillian. (2020). *Coronavirus study predicts exact date UK will be have no cases of Covid-19*. Scottish Sun, [Published May 24 2020], [Cited May 25 2020]. <https://www.thescottishsun.co.uk/news/5627231/coronavirus-study-predicts-date-uk-coronavirus-free/>

BBC. (2020aa). *Coronavirus: Cummings row raises fears over future of lockdown*. British Broadcasting Corporation (BBC), [Published May 25 2020aa], [Cited May 26 2020]. <https://www.bbc.co.uk/news/uk-52793991>

Martin, Henry. (2020). *'Barnard Castle is the new Pizza Express, Woking': Twitter pokes fun at Dominic Cummings' explanation of his lockdown trip to Durham*. Daily Mail (London), [Published May 25 2020], [Cited May 25 2020]. <https://www.dailymail.co.uk/news/article-8355181/Furious-Britons-pick-holes-Dominic-Cummings-story.html>

SKY. (2020i). *Coronavirus: Cummings row 'undermines trust in government and more people will die' - scientist*. Sky.com, [Published May 25 2020i], [Cited May 25 2020]. <https://news.sky.com/story/scientific-experts-advising-government-criticise-boris-johnson-after-he-backed-dominic-cummings-11994132>

Allegretti, Aubrey, and Greg Heffer. (2020). *Coronavirus: PM hit by resignation as battle over fate of adviser Dominic Cummings grows*. Sky.com, [Published May 26 2020], [Cited May 26 2020].

<https://news.sky.com/story/coronavirus-minister-resigns-over-dominic-cummings-lockdown-trips-11994758>

BBC. (2020ab). *Coronavirus: Shoppers 'may be reluctant' to return*. British Broadcasting Corporation (BBC), [Published May 26 2020ab], [Cited May 26 2020]. <https://www.bbc.co.uk/news/business-52804512>

Binding, Lucia. (2020). *Coronavirus: Britons urged to 'use common sense' as beaches and parks packed on hot Bank Holiday Monday*. Sky.com, [Published May 26 2020], [Cited May 26 2020]. <https://news.sky.com/story/coronavirus-police-called-to-large-group-gathering-as-britons-flock-to-beaches-during-hot-bank-holiday-11994363>

Andrew, Alison, Sarah Cattan, Monica Costa Dias, Christine Farquharson, Lucy Kraftman, Sonya Krutikova, Angus Phimister, and Almudena Sevilla. (2020b). *How are mothers and fathers balancing work and family under lockdown?* Institute for Fiscal Studies, [Published May 27 2020b], [Cited May 27 2020]. <https://www.ifs.org.uk/publications/14860>

BBC. (2020ac). *Coronavirus: Oxford University intends to teach face-to-face*. British Broadcasting Corporation (BBC), [Published May 27 2020ac], [Cited May 27 2020]. <https://www.bbc.co.uk/news/uk-england-oxfordshire-52820449>

Gregory, Andy. (2020). *'A brutal reality': Boris Johnson admits UK did not learn lessons of Sars or Mers*. Independent (London), [Published May 27 2020], [Cited June 4 2020]. <https://www.independent.co.uk/news/uk/politics/boris-johnson-coronavirus-test-contact-tracing-sars-mers-hancock-latest-a9535781.html>

Nott, George. (2020). *How coronavirus will herald a new era of automation in grocery*. The Grocer, [Published May 27 2020], [Cited August 28 2020]. <https://www.thegrocer.co.uk/supermarkets/how-coronavirus-will-herald-a-new-era-of-automation-in-grocery/605200.article>

PA. (2020b). *Hancock: local lockdowns will be used to suppress infection*. Guardian (UK), [Published May 27 2020b], [Cited May 28 2020]. <https://www.theguardian.com/world/2020/may/27/hancock-local-lockdowns-will-be-used-to-suppress-infection>

Thomas, Daniel, and Nicholas Megaw. (2020). *Coronavirus accelerates shift away from cash*. Financial Times (London), [Published May 27 2020], [Cited May 30 2020]. <https://www.ft.com/content/430b8798-92e8-4b6a-946e-0cb49c24014a>

Tolhurst, Alain. (2020). *Boris Johnson orders review of two-metre social distancing rule to help pubs re-open*. PoliticsHome, [Published May 27 2020], [Cited May 28 2020]. <https://www.politicshome.com/news/article/boris-johnson-hopes-twometre-social-distancing-rule-can-be-halved-to-help-pubs-and-public-transport-to-reopen>

ECONOMIST. (2020e). *English schools reopen, but not without a fight*. Economist, [Published May 28 2020e], [Cited May 31 2020]. <https://www.economist.com/britain/2020/05/28/english-schools-reopen-but-not-without-a-fight>

Farrell, Jason. (2020). *Coronavirus: Lockdown widening the education gap between privileged and deprived pupils, experts say*. Sky.com, [Published May 28 2020], [Cited May 28 2020]. <https://news.sky.com/story/coronavirus-lockdown-widening-the-education-gap-between-privileged-and-deprived-pupils-experts-say-11995962>

Gross, Anna, Bethan Staton, and Delphine Strauss. (2020). *Pandemic crisis prompts revival in trade union membership*. Financial Times (London), [Published May 28 2020], [Cited May 30 2020]. <https://www.ft.com/content/4613a279-e2ac-40f0-a515-0350003b9e31>

Ralph, Oliver, Anna Gross, and Robert Armstrong. (2020). *Designing insurance for the next pandemic*. Financial Times (London), [Published May 28 2020], [Cited May 30 2020]. <https://www.ft.com/content/5001cbfa-c70d-4b3d-8425-72798bb5b542>

BBC. (2020ad). *The coronavirus 'class divide': Parents judged for school return choices*. British Broadcasting Corporation (BBC), [Published May 29 2020ad], [Cited May 29 2020]. <https://www.bbc.co.uk/news/stories-52835571>

O'Connor, Mary. (2020a). *Coronavirus: When will public toilets be reopened?* British Broadcasting Corporation (BBC), [Published May 29 2020a], [Cited May 30 2020]. <https://www.bbc.co.uk/news/uk-52774794>

BBC. (2020ae). *Coronavirus: Risk in UK lockdown easing too soon, warn scientists.* British Broadcasting Corporation (BBC), [Published May 30 2020ae], [Cited May 30 2020]. <https://www.bbc.co.uk/news/uk-52858392>

BBC. (2020af). *Coronavirus: Tory MPs call for change in 2m social distancing rule.* British Broadcasting Corporation (BBC), [Published May 30 2020af], [Cited May 30 2020]. <https://www.bbc.co.uk/news/uk-52861993>

BBC. (2020ag). *Coronavirus: Drop plan to reopen primaries to all pupils, ministers urged.* British Broadcasting Corporation (BBC), [Published May 31 2020ag], [Cited May 31 2020]. <https://www.bbc.co.uk/news/education-52844043>

BBC. (2020ah). *Litter and toilet roll left at Yorkshire beauty spots.* British Broadcasting Corporation (BBC), [Published May 31 2020ah], [Cited May 31 2020]. <https://www.bbc.co.uk/news/uk-england-52867696>

Jacobs, Emma. (2020a). *Grief, lockdown and coronavirus: a looming mental health crisis.* Financial Times (London), [Published May 31 2020a], [Cited May 31 2020]. <https://www.ft.com/content/7aa6a0b4-6607-47d3-8340-2b2c9fcacfa2>

Walker, Peter. (2020a). *Local lockdowns could be used if coronavirus cases rise, says Raab.* Guardian (UK), [Published May 31 2020a], [Cited May 31 2020]. <https://www.theguardian.com/world/2020/may/31/local-lockdowns-could-be-used-coronavirus-cases-rise-says-raab>

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THF. (2020). *Public perceptions of health and social care in light of COVID-19.* The Health Foundation, [Published June 2020], [Cited June 18 2020]. <https://www.health.org.uk/publications/reports/public-perceptions-of-health-and-social-care-in-light-of-covid-19>

BBC. (2020ai). *Coronavirus: Government urged to change advice to 'stay local'.* British Broadcasting Corporation (BBC), [Published June 1 2020ai], [Cited June 2 2020]. <https://www.bbc.co.uk/news/uk-england-dorset-52875612>

BBC. (2020aj). *Coronavirus: People shielding allowed outdoors from 8 June.* British Broadcasting Corporation (BBC), [Published June 1 2020aj], [Cited June 1 2020]. <https://www.bbc.co.uk/news/uk-northern-ireland-52874529>

Chalmers, Vanessa. (2020). *NHS Covid-19 contact tracers say the 'shambolic' system is 'obviously not ready' and admit they have nothing to do all day - despite being paid up to £27-an-hour.* Daily Mail (London), [Published June 1 2020], [Cited June 1 2020]. <https://www.dailymail.co.uk/news/article-8375925/Contact-tracers-say-obviously-not-ready-admit-day.html>

Coughlan, Sean. (2020g). *Coronavirus: Primary schools back but mixed picture on turn-out.* British Broadcasting Corporation (BBC), [Published June 1 2020g], [Cited June 1 2020]. <https://www.bbc.co.uk/news/education-52854688>

FT. (2020b). *Six businesses finding an upside in the coronavirus crisis.* Financial Times (London), [Published June 1 2020b], [Cited June 1 2020]. <https://www.ft.com/content/7795c725-d5c1-4640-80c2-79fa83cca901>

NFER. (2020). *Return of pupils to school: Schools' responses to Covid-19.* National Foundation for Educational Research (UK), [Published June 1 2020], [Cited June 1 2020]. <https://www.nfer.ac.uk/news-events/press-releases/return-of-pupils-to-school-schools-responses-to-covid-19/>

Andrews, Luke. (2020a). *'World's first' plastic-free coronavirus visor that can be composted in your garden goes on sale at 50p per mask.* Daily Mail (London), [Published June 2 2020a], [Cited June 4 2020]. <https://www.dailymail.co.uk/sciencetech/article-8380879/Worlds-plastic-free-PPE-composted-garden.html>

- BBC. (2020ak). *Jurassic Coast beach crowds 'showed shocking disregard for area'*. British Broadcasting Corporation (BBC), [Published June 2 2020ak], [Cited June 2 2020]. <https://www.bbc.co.uk/news/uk-england-dorset-52890608>
- Nice, Alex. (2020). *The government should stop avoiding parliamentary scrutiny of its coronavirus legislation*. Institute for Government (UK), [Published June 2 2020], [Cited June 4 2020]. <https://www.instituteforgovernment.org.uk/blog/government-stop-avoiding-parliamentary-scrutiny-coronavirus-legislation>
- Norgrove, David. (2020). *Sir David Norgrove response to Matt Hancock regarding the Government's COVID-19 testing data*. UK Statistics Authority, [Published June 2 2020], [Cited June 2 2020]. <https://www.statisticsauthority.gov.uk/correspondence/sir-david-norgrove-response-to-matt-hancock-regarding-the-governments-covid-19-testing-data/>
- PHE. (2020). *COVID-19: review of disparities in risks and outcomes*. Public Health England, [Published June 2 2020], [Cited June 2 2020]. <https://www.gov.uk/government/publications/covid-19-review-of-disparities-in-risks-and-outcomes>
- Coughlan, Sean. (2020h). *Coronavirus: Students might have to stay in 'protective bubble'*. British Broadcasting Corporation (BBC), [Published June 3 2020h], [Cited June 3 2020]. <https://www.bbc.co.uk/news/education-52897727>
- Meredith, Robbie. (2020a). *Coronavirus: School social distancing 'difficult to achieve'*. British Broadcasting Corporation (BBC), [Published June 3 2020a], [Cited June 3 2020]. https://www.bbc.co.uk/news/uk-northern-ireland-52899751?intlink_from_url=https://www.bbc.co.uk/news/education&link_location=live-reporting-story
- Sale, Ian. (2020). *Coronavirus: British zoos 'at risk of extinction' after being told to remain closed*. Sky.com, [Published June 3 2020], [Cited June 5 2020]. <https://news.sky.com/story/coronavirus-british-zoos-at-risk-of-extinction-after-being-told-to-remain-closed-11999863>
- Shukman, David. (2020a). *Coronavirus: Could social distancing of less than two metres work?* British Broadcasting Corporation (BBC), [Published June 3 2020a], [Cited June 3 2020]. <https://www.bbc.co.uk/news/science-environment-52522460>
- BBC. (2020al). *Coronavirus: Face coverings to be mandatory on public transport*. British Broadcasting Corporation (BBC), [Published June 4 2020al], [Cited June 4 2020]. <https://www.bbc.co.uk/news/uk-52927089>
- BBC. (2020am). *Quarantine rules a 'killer blow' for travel sector*. British Broadcasting Corporation (BBC), [Published June 4 2020am], [Cited June 4 2020]. <https://www.bbc.co.uk/news/business-52917425>
- Hancock, Alice. (2020b). *Can London's high-end restaurants survive the pandemic?* Financial Times (London), [Published July 4 2020b], [Cited July 6 2020]. <https://www.ft.com/content/b2023bca-8486-4f94-bdea-e52e60818206>
- Marsh, Sarah. (2020b). *NHS test-and-trace app 'not fully operational until September'*. Guardian (UK), [Published June 4 2020b], [Cited June 4 2020]. <https://www.theguardian.com/society/2020/jun/04/nhs-track-and-trace-system-not-expected-to-be-operating-fully-until-september-coronavirus>
- BBC. (2020an). *Coronavirus: NHS contact-tracing app in place by end of month, says minister*. British Broadcasting Corporation (BBC), [Published June 5 2020an], [Cited June 5 2020]. <https://www.bbc.co.uk/news/uk-52931232>
- Syal, Rajeev. (2020a). *UK parliament union threatens to strike after MPs' queueing chaos*. Guardian (UK), [Published June 4 2020a], [Cited June 5 2020]. <https://www.theguardian.com/politics/2020/jun/04/uk-parliament-union-threatens-action-after-mps-queueing-chaos>
- Ferguson, Donna, and Michael Savage. (2020). *'We're still waiting': schools lack free laptops pledged for poorer GCSE pupils*. Guardian (UK), [Published June 7 2020], [Cited June 7 2020]. <https://www.theguardian.com/education/2020/jun/07/were-still-waiting-schools-still-lack-free-laptops-pledged-to-help-poorer-gcse-pupils>
- ONS. (2020h). *Coronavirus and loneliness, Great Britain: 3 April to 3 May 2020*. Office for National Statistics (UK), [Published June 8 2020h], [Cited June 11 2020].

<https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/coronavirusandlonelinessgreatbritain/3aprilto3may2020>

Butler, Patrick. (2020a). *Coronavirus leaves one in 10 UK charities facing bankruptcy this year*. Guardian (UK), [Published June 9 2020a], [Cited June 9 2020].

<https://www.theguardian.com/world/2020/jun/09/coronavirus-leaves-one-in-10-uk-charities-facing-bankruptcy-this-year>

McGuinness, Alan. (2020b). *Coronavirus: Plans shelved for primary pupils to be back in school before summer as figures reveal half have reopened*. Sky.com, [Published June 9 2020b], [Cited June 9 2020].

<https://news.sky.com/story/coronavirus-plans-shelved-for-primary-pupils-to-be-back-in-school-before-summer-as-figures-reveal-half-have-reopened-12003440>

Pidd, Helen. (2020b). *Local lockdowns will require local furlough schemes, say mayors*. Guardian (UK), [Published June 9 2020b], [Cited June 9 2020]. <https://www.theguardian.com/politics/2020/jun/09/local-lockdowns-will-require-local-furlough-schemes-say-mayors>

BBC. (2020ao). *'Disappointing' progress on social mobility in England*. British Broadcasting Corporation (BBC), [Published June 10 2020ao], [Cited June 10 2020]. <https://www.bbc.co.uk/news/uk-politics-52982440>

Jeffreys, Branwen. (2020a). *Coronavirus: Pupils tense as teachers submit estimated grades*. British Broadcasting Corporation (BBC), [Published June 10 2020a], [Cited June 10 2020].

<https://www.bbc.co.uk/news/education-52944057>

Masters, Brooke. (2020a). *Homeworking makes spilling corporate secrets all the easier*. Financial Times (London), [Published June 10 2020a], [Cited June 11 2020]. <https://www.ft.com/content/9fdd9de9-00ea-4fd4-a558-6b43e8b774a3>

Richardson, Hannah. (2020d). *Starmer: England's back-to-school plans 'lie in tatters'*. British Broadcasting Corporation (BBC), [Published June 10 2020d], [Cited June 10 2020].

<https://www.bbc.co.uk/news/education-52992226>

SMC. (2020a). *Monitoring social mobility: 2013-2020: Is the government delivering on our recommendations?* Social Mobility Commission (UK), [Published June 10 2020a], [Cited June 10 2020].

<https://www.gov.uk/government/publications/monitoring-social-mobility-2013-to-2020>

BBC. (2020ap). *Coronavirus: Growing calls for government to scrap 2m rule*. British Broadcasting Corporation (BBC), [Published June 11 2020ap], [Cited June 11 2020]. <https://www.bbc.co.uk/news/uk-53003046>

Burrige, Tom. (2020c). *Coronavirus: Renewed push for 'travel corridors'*. British Broadcasting Corporation (BBC), [Published June 11 2020c], [Cited June 12 2020].

<https://www.bbc.co.uk/news/business-53002677>

Dempsey, Harry. (2020). *Heathrow warns of job cuts as UK quarantine measures compound 'grim picture'*. Financial Times (London), [Published June 11 2020], [Cited June 11 2020].

<https://www.ft.com/content/bdcb0c55-f2ae-40c8-acf1-90dc9d858a7e>

ECONOMIST. (2020f). *Shutting the stable door: Britain's new quarantine rules are a head-scratcher*. Economist, [Published June 11 2020f], [Cited June 12 2020].

<https://www.economist.com/britain/2020/06/11/britains-new-quarantine-rules-are-a-head-scratcher>

Coughlan, Sean. (2020i). *Coronavirus: School in September 'part-time if 2m distancing'*. British Broadcasting Corporation (BBC), [Published June 12 2020i], [Cited June 12 2020].

<https://www.bbc.co.uk/news/education-53014105>

BBC. (2020aq). *More than 600,000 UK workers lose their jobs amid lockdown*. British Broadcasting Corporation (BBC), [Published June 16 2020aq], [Cited June 16 2020].

<https://www.bbc.co.uk/news/business-53060529>

Coughlan, Sean. (2020j). *Free internet to help poorer pupils study online*. British Broadcasting Corporation (BBC), [Published June 16 2020j], [Cited June 16 2020].

<https://www.bbc.co.uk/news/education-53057767>

Lucas, Megan, Julie Nelson, and David Sims. (2020). *Schools Responses to Covid-19: Pupil Engagement in Remote Learning*. National Foundation for Educational Research (UK), [Published June

16 2020], [Cited June 16 2020]. <https://www.nfer.ac.uk/schools-responses-to-covid-19-pupil-engagement-in-remote-learning/>

Sellgren, Katherine. (2020b). *Coronavirus: A third of pupils 'not engaging with work'*. British Broadcasting Corporation (BBC), [Published June 16 2020b], [Cited June 16 2020]. <https://www.bbc.co.uk/news/education-53049127>

Wilson, Hannah, and Stephanie Waddell. (2020). *Covid-19 and early intervention: Understanding the impact, preparing for recovery*. Early Intervention Foundation (UK), [Published June 16 2020], [Cited July 4 2020]. <https://www.eif.org.uk/report/covid-19-and-early-intervention-understanding-the-impact-preparing-for-recovery>

Behr, Rafael. (2020). *Incompetence is a built-in feature, not a bug in Boris Johnson's government*. Guardian (UK), [Published June 17 2020], [Cited June 17 2020]. <https://www.theguardian.com/commentisfree/2020/jun/17/incompetence-boris-johnson-government-cabinet-britain>

Murphy, Ian. (2020a). *Coronavirus: Toilet fears hamper high street return for some*. British Broadcasting Corporation (BBC), [Published June 17 2020a], [Cited June 17 2020]. <https://www.bbc.co.uk/news/uk-england-53064651>

Pickford, James. (2020a). *UK creative industries risk 'cultural catastrophe' without support*. Financial Times (London), [Published June 17 2020a], [Cited June 17 2020]. <https://www.ft.com/content/aa93b17b-55ea-4273-aff0-80b6d92c2c8d>

Stacey, Viggo. (2020). *Most UK unis preparing for in-person teaching in 2020, survey finds*. The Pie News, [Published June 17 2020], [Cited June 22 2020]. <https://thepienews.com/news/uk-universities-prepare-for-in-person-teaching-in-2020/>

Yorke, Harry, and Dominic Penna. (2020). *More than 90 coronavirus laws and rules imposed without Parliamentary scrutiny*. Daily Telegraph (London), [Published June 17 2020], [Cited June 19 2020]. <https://www.telegraph.co.uk/politics/2020/06/17/90-coronavirus-laws-rules-imposed-without-parliamentary-scrutiny/>

ECONOMIST. (2020g). *An unfortunate case study: The British state shows how not to respond to a pandemic*. Economist, [Published June 18 2020g], [Cited June 18 2020]. <https://www.economist.com/britain/2020/06/18/the-british-state-shows-how-not-to-respond-to-a-pandemic>

Gibbons, Amy. (2020a). *Teachers are most anxious key workers in Covid crisis*. Times Educational Supplement, [Published June 18 2020a], [Cited June 18 2020]. <https://www.tes.com/news/coronavirus-teachers-are-most-anxious-key-workers-covid-crisis>

Hackett, Matt. (2020). *The UK's 'World Beating' Coronavirus App Is Being Canned*. Vice Media, [Published June 18 2020], [Cited June 18 2020]. <https://www.vice.com/en/article/jgx5p8/uk-track-trace-coronavirus-app>

Marshall, Louise, Jo Bibby, and Isabel Abbs. (2020). *Emerging evidence on COVID-19's impact on mental health and health inequalities*. The Health Foundation, [Published June 18 2020], [Cited June 25 2020]. <https://www.health.org.uk/news-and-comment/blogs/emerging-evidence-on-covid-19s-impact-on-mental-health-and-health>

Menedez, Eliza. (2020). *NHS track and trace app ditched for new model focused on better privacy*. Metro News, [Published June 18 2020], [Cited June 19 2020]. <https://metro.co.uk/2020/06/18/nhs-track-trace-app-ditched-new-model-focused-better-privacy-12871208/>

Pickard, Jim, Tanya Powley, and Gill Plimmer. (2020). *UK rail bailout hits £3.5bn and set to rise further*. Financial Times (London), [Published June 18 2020], [Cited June 18 2020]. <https://www.ft.com/content/24e57a49-03e6-4106-9f7c-b630fdb76e28>

BBC. (2020ar). *Coronavirus: All children in England 'back to school in September*. British Broadcasting Corporation (BBC), [Published June 19 2020ar], [Cited June 22 2020]. <https://www.bbc.co.uk/news/education-53113201>

Burgess, Matt. (2020). *Why the NHS Covid-19 contact tracing app failed*. Wired.com, [Published June 19 2020], [Cited June 30 2020]. <https://www.wired.co.uk/article/nhs-tracing-app-scrapped-apple-google-uk>

- Neville, Sarah, and Helen Warrell. (2020). *England's contact app fiasco exposes limits of technology*. Financial Times (London), [Published June 19 2020], [Cited June 21 2020]. <https://www.ft.com/content/bf7f6693-0821-4aa5-8870-8e66f34a7ecf>
- Richardson, Hannah. (2020e). *Coronavirus: £1bn catch-up tutoring fund for England's pupils*. British Broadcasting Corporation (BBC), [Published June 19 2020e], [Cited June 19 2020]. <https://www.bbc.co.uk/news/education-53100881>
- Staton, Bethan, and Laura Hughes. (2020). *England's school catch-up package is less than £80 per pupil, says IFS*. Financial Times (London), [Published June 19 2020], [Cited June 21 2020]. <https://www.ft.com/content/1bb7d2ae-e227-4df7-808f-2d1c81899f95>
- Inman, Phillip. (2020a). *UK economy likely to suffer worst Covid-19 damage, says OECD*. Guardian (UK), [Published June 10 2020a], [Cited June 10 2020]. <https://www.theguardian.com/business/2020/jun/10/uk-economy-likely-to-suffer-worst-covid-19-damage-says-oecd>
- Hancock, Alice, John Burn-Murdoch, and Andrew Bounds. (2020). *Summer brings hope and fear to Britain's beaches and seaside towns*. Financial Times (London), [Published June 22 2020], [Cited June 23 2020]. <https://www.ft.com/content/58a44783-8db3-4d88-9a5f-03693c1761ba>
- Nagesh, Ashitha. (2020). *Coronavirus: Children 'developing post-traumatic stress' from pandemic*. British Broadcasting Corporation (BBC), [Published June 22 2020], [Cited June 22 2020]. <https://www.bbc.co.uk/news/education-53097289>
- TCT. (2020). *Children in Lockdown: The Consequences of the Coronavirus Crisis for Children Living in Poverty*. The Childhood Trust, [Published June 22 2020], [Cited June 22 2020]. <https://view.publitas.com/the-childhood-trust/children-in-lockdown-the-childhood-trust-report-june-2020/page/1>
- Romei, Valentina. (2020b). *UK income inequality was rising for two years before Covid crisis*. Financial Times (London), [Published June 23 2020b], [Cited June 23 2020]. <https://www.ft.com/content/e8bc8da9-8fb2-4038-a555-5d04931237c6>
- SMMT. (2020). *UK Auto calls for restart support as Covid crisis threatens one in six jobs*. Society of Motor Manufacturers and Traders, [Published June 23 2020], [Cited June 23 2020]. <https://www.smm.co.uk/2020/06/uk-auto-calls-for-restart-support-as-covid-crisis-threatens-one-in-six-jobs/>
- BBC. (2020as). *Airports giant Swissport set to halve its UK workforce*. British Broadcasting Corporation (BBC), [Published June 24 2020as], [Cited June 24 2020]. <https://www.bbc.co.uk/news/business-53163698>
- BBC. (2020at). *Coronavirus: UK must prepare for second virus wave - health leaders*. British Broadcasting Corporation (BBC), [Published June 24 2020at], [Cited June 25 2020]. <https://www.bbc.co.uk/news/uk-53159918>
- Burns, Judith. (2020c). *Coronavirus: NUS launches 'mass action' for lockdown students*. British Broadcasting Corporation (BBC), [Published June 24 2020c], [Cited June 25 2020]. <https://www.bbc.co.uk/news/education-53152072>
- Coughlan, Sean. (2020k). *Furloughed Eurostar staff become French teachers*. British Broadcasting Corporation (BBC), [Published June 24 2020k], [Cited June 25 2020]. <https://www.bbc.co.uk/news/education-53166258>
- Craig, John. (2020). *Coronavirus: Scientific advisers admit concerns as Boris Johnson eases lockdown*. Sky.com, [Published June 24 2020], [Cited June 24 2020]. <https://news.sky.com/story/coronavirus-scientific-advisers-distance-themselves-from-pms-lockdown-easing-12013442>
- Santry, Charlotte. (2020). *Exclusive: £650m catch-up cash not targeted at poor*. Times Educational Supplement, [Published June 24 2020], [Cited June 25 2020]. <https://www.tes.com/news/coronavirus-ps650m-catch-cash-not-targeted-poor>
- Wright, Robert. (2020). *The lockdown has transformed life for the homeless — but what happens now?* Financial Times (London), [Published June 24 2020], [Cited June 28 2020]. <https://www.ft.com/content/83578ab4-4aa8-4c7b-9867-31238dfb3f9a>

- BBC. (2020au). *Bournemouth beach: Major incident declared as thousands flock to coast*. British Broadcasting Corporation (BBC), [Published June 25 2020au], [Cited June 25 2020]. <https://www.bbc.co.uk/news/uk-england-dorset-53176717>
- BBC. (2020av). *Coronavirus: UK councils fear bankruptcy amid Covid-19 costs*. British Broadcasting Corporation (BBC), [Published June 25 2020av], [Cited June 25 2020]. <https://www.bbc.co.uk/news/uk-53069772>
- Burns, Judith. (2020d). *Heads angry as government downplays school 2m rule*. British Broadcasting Corporation (BBC), [Published June 25 2020d], [Cited June 26 2020]. <https://www.bbc.co.uk/news/education-53184613>
- Gibbons, Amy. (2020b). *DfE won't say if £1bn Covid catch-up fund is new money*. Times Educational Supplement, [Published June 25 2020b], [Cited June 26 2020]. <https://www.tes.com/news/coronavirus-dfe-wont-say-if-1bn-covid-fund-actually-new-money>
- Lough, Catherine. (2020). *Proportion of pupils eligible for free meals up 27%*. Times Educational Supplement, [Published June 25 2020], [Cited June 25 2020]. <https://www.tes.com/news/proportion-pupils-eligible-free-meals-27>
- Nicolaou, Anna. (2020). *Coronavirus rips a hole in newspapers' business models*. Financial Times (London), [Published June 25 2020], [Cited June 25 2020]. <https://www.ft.com/content/b6fdec4c-e3e7-43b9-a804-03c435de65bb>
- Richardson, Hannah. (2020f). *Nurseries warn of 'mass closures' as lockdown lifts*. British Broadcasting Corporation (BBC), [Published June 25 2020f], [Cited June 25 2020]. <https://www.bbc.co.uk/news/education-53168714>
- Triggle, Nick. (2020b). *Coronavirus: Tracers ask over 100,000 to self-isolate*. British Broadcasting Corporation (BBC), [Published June 25 2020b], [Cited June 25 2020]. <https://www.bbc.co.uk/news/health-53157284>
- BBC. (2020aw). *Shopping centre giant Intu enters administration*. British Broadcasting Corporation (BBC), [Published June 26 2020aw], [Cited July 2 2020]. <https://www.bbc.co.uk/news/business-53195980>
- Clark, Pilita, Helen Warrell, Tim Bradshaw, and Sarah Neville. (2020). *The rise and fall of Hancock's homegrown tracing app*. Financial Times (London), [Published June 26 2020], [Cited June 27 2020]. <https://www.ft.com/content/9446192a-aff1-4e95-93fb-a5adfb7bbd5>
- Plimmer, Gill, and Alice Hancock. (2020). *UK sewage plants fear deluge of stale beer*. Financial Times (London), [Published June 26 2020], [Cited June 27 2020]. <https://www.ft.com/content/d422b0f6-f9ca-4e34-8b10-7cb4a09feb53>
- Kollewe, Julia. (2020). *Why the home-working boom could tumble London's skyscrapers*. Guardian (UK), [Published June 27 2020], [Cited June 27 2020]. <https://www.theguardian.com/business/2020/jun/27/why-the-home-working-boom-could-tumble-londons-skyscrapers>
- Jacobs, Emma. (2020b). *School closures force parents to choose between family and work*. Financial Times (London), [Published June 28 2020b], [Cited June 28 2020]. <https://www.ft.com/content/3084e0e4-c5ce-45ab-bcea-1480726fdb8>
- Proctor, Kate. (2020). *Just 6% of UK public 'want a return to pre-pandemic economy'*. Guardian (UK), [Published June 28 2020], [Cited June 30 2020]. <https://www.theguardian.com/world/2020/jun/28/just-6-of-uk-public-want-a-return-to-pre-pandemic-economy>
- LORDS. (2020). *Democracy under threat from 'pandemic of misinformation' online, say Lords Committee*. House of Lords, Democracy and Digital Technologies Committee, [Published June 29 2020], [Cited December 16 2020]. <https://committees.parliament.uk/committee/407/democracy-and-digital-technologies-committee/news/115316/democracy-under-threat-from-pandemic-of-misinformation-online-say-lords-committee/>
- ONS. (2020i). *Coronavirus and shielding of clinically extremely vulnerable people in England: 9 June to 18 June 2020*. Office for National Statistics (UK), [Published June 29 2020i], [Cited June 30 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronavirusandshieldingofclinicallyextremelyvulnerablepeopleinengland/9juneto18june2020>

Elliott, Larry. (2020a). *UK economy hit by sharpest fall in 41 years amid Covid-19 crisis*. Guardian (UK), [Published June 30 2020a], [Cited June 30 2020]. <https://www.theguardian.com/business/2020/jun/30/uk-economy-fall-covid-19-gdp-figures-coronavirus-pandemic>

10.8 July 2020 - The Call for 'Local' as the Pandemic impacts differentially

Iacus, Stefano, Serna Carlos Santamaria, Francesco Sermi, Spyridon Spyratos, Dario Tarchi, and Michele Vespe. (2020a). *How human mobility explains the initial spread of COVID-19*. Joint Research Centre (European Commission), [Published July 2020a], [Cited July 27 2020]. <https://ec.europa.eu/jrc/en/publication/how-human-mobility-explains-initial-spread-covid-19>

Iacus, Stefano, Serna Carlos Santamaria, Francesco Sermi, Spyridon Spyratos, Dario Tarchi, and Michele Vespe. (2020b). *Mapping Mobility Functional Areas (MFA) using Mobile Positioning Data to Inform COVID-19 Policies*. Joint Research Centre (European Commission), [Published July 2020b], [Cited July 27 2020]. <https://ec.europa.eu/jrc/en/publication/mapping-mobility-functional-areas-mfa-using-mobile-positioning-data-inform-covid-19-policies>

BBC. (2020ax). *Coronavirus: Data needed quicker to target local outbreaks, say doctors*. British Broadcasting Corporation (BBC), [Published July 1 2020ax], [Cited July 1 2020]. <https://www.bbc.co.uk/news/uk-53244626>

BBC. (2020ay). *Coronavirus: Local testing data to be shared with councils*. British Broadcasting Corporation (BBC), [Published July 1 2020ay], [Cited July 1 2020]. <https://www.bbc.co.uk/news/uk-53244626>

Bounds, Andy, Laura Hughes, and Sarah Neville. (2020). *Labour slams ministers over Deloitte virus testing deal*. Financial Times (London), [Published July 1 2020], [Cited July 28 2020]. <https://www.ft.com/content/e5079a62-4469-470d-af29-f79e82879853>

Butler, Patrick. (2020b). *Nearly half of BAME UK households are living in poverty*. Guardian (UK), [Published July 1 2020b], [Cited July 2 2020]. <https://www.theguardian.com/society/2020/jul/01/nearly-half-of-bame-uk-households-are-living-in-poverty>

Gross, Anna, and Ian Bott. (2020a). *The radical technologies to keep offices clear of coronavirus*. Financial Times (London), [Published July 1 2020a], [Cited July 1 2020]. <https://www.ft.com/content/c4de006e-c483-4a9c-88d7-0373e2a3c9c0>

Richardson, Hannah, and Katherine Sellgren. (2020). *'Utter abandonment' of special needs families during lockdown*. British Broadcasting Corporation (BBC), [Published July 1 2020], [Cited July 2 2020]. <https://www.bbc.co.uk/news/education-53248609>

SMC. (2020b). *Measuring Poverty 2020*. Social Metrics Commission (UK), [Published July 1 2020b], [Cited July 2 2020]. <https://socialmetricscommission.org.uk/measuring-poverty-2020/>

Stubley, Peter. (2020a). *UK economy on course for 'V-shaped' recovery from pandemic, Bank of England chief economist says*. Independent (London), [Published July 1 2020a], [Cited July 2 2020]. <https://www.independent.co.uk/news/business/news/coronavirus-recovery-v-shape-recession-uk-gdp-bank-england-andy-haldane-a9594741.html>

Coughlan, Sean. (2020l). *Coronavirus: Year groups kept isolated in back-to-school plan*. British Broadcasting Corporation (BBC), [Published July 2 2020l], [Cited July 2 2020]. <https://www.bbc.co.uk/news/education-53253722>

BBC. (2020az). *Coronavirus: Almost 30,000 'excess' care homes deaths*. British Broadcasting Corporation (BBC), [Published July 3 2020az], [Cited July 3 2020]. <https://www.bbc.co.uk/news/uk-53280011>

Dias, Monica Costa, Robert Joyce, and Agnes Norris Keiller. (2020). *COVID-19 and the career prospects of young people*. Institute for Fiscal Studies, [Published July 3 2020], [Cited July 6 2020]. <https://www.ifs.org.uk/publications/14914>

O'Connor, Sarah. (2020b). *Leicester's dark factories show up a diseased system*. Financial Times (London), [Published July 3 2020b], [Cited July 3 2020]. <https://www.ft.com/content/0b26ee5d-4f4f-4d57-a700-ef49038de18c>

- ONS. (2020j). *Impact of coronavirus in care homes in England: 26 May to 19 June 2020*. Office for National Statistics (UK), [Published July 3 2020], [Cited July 3 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/impactofcoronavirusincarehomesinenglandvivaldi/26mayto19june2020>
- Reuters. (2020). *Britain mulls joining EU's coronavirus vaccine scheme*. Reuters, [Published July 3 2020], [Cited July 3 2020]. <https://uk.reuters.com/article/uk-health-coronavirus-britain-eu/britain-mulls-joining-eus-coronavirus-vaccine-scheme-idUKKBN244213>
- BBC. (2020ba). *Coronavirus: UK government's quarantine-free list 'absurd'*. British Broadcasting Corporation (BBC), [Published July 4 2020ba], [Cited July 4 2020]. <https://www.bbc.co.uk/news/uk-53288080>
- Blackall, Molly, and Lucy Campbell. (2020). *UK coronavirus: pubs and hair salons reopen in England as lockdown eases - as it happened*. Guardian (UK), [Published July 4 2020], [Cited July 4 2020]. <https://www.theguardian.com/world/live/2020/jul/04/uk-coronavirus-live-pubs-and-hair-salons-reopen-in-england-as-lockdown-eases-latest-updates>
- Elledge, John. (2020). *Covid-19 has exposed the UK's public toilet crisis*. New Statesman, [Published July 5 2020], [Cited July 14 2020]. <https://www.newstatesman.com/politics/uk/2020/07/covid-19-has-exposed-uk-s-public-toilet-crisis>
- Nazir, Sahar. (2020). *Boohoo accused of slavery practices in Leicester factory*. Retail Gazette, [Published July 5 2020], [Cited July 7 2020]. <https://www.retailgazette.co.uk/blog/2020/07/boohoo-accused-of-slavery-practices-in-leicester-factory/>
- BBC. (2020bb). *Coronavirus: Arts venues welcome £1.57bn government support*. British Broadcasting Corporation (BBC), [Published July 6 2020bb], [Cited July 6 2020]. <https://www.bbc.co.uk/news/entertainment-arts-53302415>
- Brigham, Sarah. (2020). *The UK arts rescue package is a huge relief – but the devil will be in the detail*. Guardian (UK), [Published July 6 2020], [Cited July 6 2020]. <https://www.theguardian.com/commentisfree/2020/jul/06/arts-recovery-package-sector>
- Drayton, Elaine, and Ben Walton. (2020). *Will universities need a bailout to survive the COVID-19 crisis?* Institute for Fiscal Studies, [Published July 6 2020], [Cited July 6 2020]. <https://www.ifs.org.uk/publications/14919>
- Mottram, Richard. (2020). *Eight provisional lessons from Britain's handling of COVID-19*. London School of Economics & Political Science, [Published July 6 2020], [Cited July 22 2020]. <https://blogs.lse.ac.uk/politicsandpolicy/covid19-crisis-management-machinery/>
- Ziady, Hanna. (2020b). *The UK is reopening for business. London may never be the same*. CNN, [Published July 6 2020b], [Cited July 7 2020]. <https://edition.cnn.com/2020/07/04/business/london-coronavirus-economy/index.html>
- BBC. (2020bc). *Coronavirus: Emergency money for culture 'won't save every job'*. British Broadcasting Corporation (BBC), [Published July 7 2020bc], [Cited July 7 2020]. <https://www.bbc.co.uk/news/entertainment-arts-53302415>
- Willson, Clare. (2020a). *Why hasn't the UK seen a second wave of the coronavirus?* New Scientist, [Published July 7 2020a], [Cited July 17 2020]. https://www.newscientist.com/article/2248216-why-hasnt-the-uk-seen-a-second-wave-of-the-coronavirus/?utm_source=pocket-newtab-global-en-GB
- Davies, William. (2020a). *Coronavirus and the rise of rule-breakers*. New Statesman, [Published July 8 2020a], [Cited July 14 2020]. <https://www.newstatesman.com/2020/07/coronavirus-and-rise-rule-breakers>
- ONS. (2020k). *Coronavirus and homeworking in the UK: April 2020*. Office for National Statistics (UK), [Published July 8 2020k], [Cited July 9 2020]. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/coronavirusandhomeworkingintheuk/april2020>
- Sellgren, Katherine. (2020c). *Coronavirus: Home-schooling has been hell, say parents*. British Broadcasting Corporation (BBC), [Published July 8 2020c], [Cited July 8 2020]. <https://www.bbc.co.uk/news/education-53319615>

Treasury. (2020c). *Chancellor's Plan for Jobs to help the UK's recovery*. HM Treasury (UK), [Published July 8 2020c], [Cited July 8 2020]. <https://www.gov.uk/government/news/rishis-plan-for-jobs-will-help-britain-bounce-back>

BBC. (2020bd). *Robust plan for PPE 'must be in place for winter'*. British Broadcasting Corporation (BBC), [Published July 9 2020bd], [Cited July 9 2020]. <https://www.bbc.co.uk/news/health-53318418>

Conway, Ed, and Roland Manthorpe. (2020). *Coronavirus: The inside story of how UK's 'chaotic' testing regime 'broke all the rules'*. Sky.com, [Published July 9 2020], [Cited July 9 2020]. <https://news.sky.com/story/coronavirus-the-inside-story-of-how-uks-chaotic-testing-regime-broke-all-the-rules-12022566>

Elvin, Sian. (2020). *Government to spend £10,000,000,000 on test and trace that still misses targets*. Metro News, [Published July 9 2020], [Cited July 27 2020]. <https://metro.co.uk/2020/07/09/government-spent-10000000000-failing-test-trace-programme-12967585/>

Richardson, Hannah. (2020g). *Government to scrap 50% of young to university target*. British Broadcasting Corporation (BBC), [Published July 9 2020g], [Cited July 10 2020]. <https://www.bbc.co.uk/news/education-53348709>

Sales, Dan, and John Stevens. (2020). *'A green light for junk food': Obesity campaigners blast Rishi Sunak's 'Eat Out' scheme launched on SAME day government told Britons to lose weight or risk Covid this winter... as Burger King cuts price of Whoppers in HALF*. Daily Mail (London), [Published July 9 2020], [Cited July 9 2020]. <https://www.dailymail.co.uk/news/article-8505423/A-green-light-junk-food-Obesity-campaigners-blast-Eat-Help-scheme.html>

COMMONS. (2020a). *Getting the grades they've earned: Covid-19: the cancellation of exams and 'calculated' grades*. House of Commons, Education Select Committee, [Published July 10 2020a], [Cited July 29 2020]. <https://publications.parliament.uk/pa/cm5801/cmselect/cmeduc/617/61702.htm>

Mathers, Matt. (2020b). *Coronavirus: Which everyday activities put you most at risk from Covid-19?* Independent (London), [Published July 10 2020b], [Cited July 11 2020]. <https://www.independent.co.uk/news/health/coronavirus-risk-doctors-texas-medical-association-covid-19-a9610371.html>

Wakefield, Jane. (2020b). *Coronavirus: How can we make post-pandemic cities smarter?* British Broadcasting Corporation (BBC), [Published July 11 2020b], [Cited July 12 2020]. <https://www.bbc.co.uk/news/technology-53192469>

BBC. (2020be). *Coronavirus: 'No physical distancing' needed for school pupils*. British Broadcasting Corporation (BBC), [Published July 16 2020be], [Cited July 17 2020]. <https://www.bbc.co.uk/news/uk-scotland-53423453>

DfE. (2020a). *Establishment of a Higher Education Restructuring Regime in Response to COVID-19*. Department for Education (UK), [Published July 16 2020a], [Cited August 3 2020]. <https://www.gov.uk/government/publications/higher-education-restructuring-regime>

DfE. (2020b). *Government scheme to help universities in financial difficulties*. Department for Education (UK), [Published July 16 2020b], [Cited August 3 2020]. <https://www.gov.uk/government/news/government-scheme-to-help-universities-in-financial-difficulties>

Heffer, Greg. (2020a). *Coronavirus: Leicester lockdown 'unnecessary' if data had been known earlier, says city's mayor*. Sky.com, [Published July 16 2020a], [Cited July 16 2020]. <https://news.sky.com/story/coronavirus-leicester-lockdown-unnecessary-if-data-had-been-known-earlier-says-citys-mayor-12029450>

BBC. (2020bf). *Hancock calls for urgent review into coronavirus death data in England*. British Broadcasting Corporation (BBC), [Published July 17 2020bf], [Cited July 17 2020]. <https://www.bbc.co.uk/news/health-53443724>

ECONOMIST. (2020h). *A class apart: As schools reopen, how can pupils make up for lost time?* Economist, [Published July 18 2020h], [Cited July 27 2020]. <https://www.economist.com/international/2020/07/18/as-schools-reopen-how-can-pupils-make-up-for-lost-time>

- ECONOMIST. (2020i). *How the levers came off: How centralisation impeded Britain's covid-19 response*. Economist, [Published July 18 2020i], [Cited July 18 2020]. <https://www.economist.com/britain/2020/07/18/how-centralisation-impeded-britains-covid-19-response>
- ECONOMIST. (2020j). *Let them learn: The risks of keeping schools closed far outweigh the benefits*. Economist, [Published July 18 2020j], [Cited July 18 2020]. <https://www.economist.com/leaders/2020/07/18/the-risks-of-keeping-schools-closed-far-outweigh-the-benefits>
- COMMONS. (2020b). *Whole of Government Response to COVID-19*. House of Commons, Public Accounts Select Committee, [Published July 20 2020b], [Cited July 29 2020]. <https://committees.parliament.uk/publications/2024/documents/19531/default/>
- Elgot, Jessica. (2020a). *'You can't fight this from Whitehall': mayor calls for local Covid-19 powers*. Guardian (UK), [Published July 20 2020a], [Cited July 29 2020]. <https://www.theguardian.com/world/2020/jul/20/you-cant-fight-this-from-whitehall-mayor-calls-for-local-covid-19-powers>
- Trendall, Sam. (2020). *Government agrees to provide councils with daily individual testing data*. Public Technology, [Published July 21 2020], [Cited July 27 2020]. <https://www.publictechnology.net/articles/news/government-agrees-provide-councils-daily-individual-testing-data>
- Halliday, Josh. (2020a). *Test and trace failing to contact thousands in England's worst-hit areas*. Guardian (UK), [Published July 22 2020a], [Cited July 23 2020]. <https://www.theguardian.com/world/2020/jul/22/test-and-trace-system-in-england-failing-to-contact-thousands>
- Neville, Sarah. (2020a). *Covid-19 unmask weaknesses of English public health agency*. Financial Times (London), [Published July 22 2020a], [Cited July 26 2020]. <https://www.ft.com/content/e149101a-1c93-4b0a-bc12-14ca8bf11b0e>
- ONS. (2020l). *Coronavirus and homeschooling in Great Britain: April to June 2020*. Office for National Statistics (UK), [Published July 22 2020l], [Cited July 27 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/educationandchildcare/articles/coronavirusandhomeschoolinggreatbritain/latest>
- ONS. (2020m). *Parenting in lockdown: Coronavirus and the effects on work-life balance*. Office for National Statistics (UK), [Published July 22 2020m], [Cited July 27 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/parentinginlockdowncoronavirusandtheeffectsonworklifebalance/latest>
- Richardson, Hannah. (2020h). *British pupils 'struggled to continue learning at home'*. British Broadcasting Corporation (BBC), [Published July 22 2020h], [Cited July 27 2020]. <https://www.bbc.co.uk/news/education-53498523>
- ONS. (2020n). *Coronavirus and shielding of clinically extremely vulnerable people in England: 24 June to 30 June 2020*. Office for National Statistics (UK), [Published July 23 2020n], [Cited August 3 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronavirusandshieldingofclinicallyextremelyvulnerablepeopleinengland/24juneto30june2020>
- Syal, Rajeev. (2020b). *UK failed to plan for economic impact of flu-like pandemic, says watchdog*. Guardian (UK), [Published July 23 2020b], [Cited July 24 2020]. <https://www.theguardian.com/world/2020/jul/23/uk-failed-to-plan-for-economic-impact-of-flu-like-pandemic-says-watchdog>
- Coughlan, Sean. (2020m). *Coronavirus: Lost school time 'will hurt economy for 65 years' - study*. British Broadcasting Corporation (BBC), [Published July 24 2020m], [Cited July 24 2020]. <https://www.bbc.co.uk/news/education-53514564>
- Pidd, Helen, and Josh Halliday. (2020). *Coronavirus data failing local authorities, health bosses in England say*. Guardian (UK), [Published July 24 2020], [Cited July 24 2020]. <https://www.theguardian.com/world/2020/jul/24/coronavirus-data-failing-local-authorities-england-health>

- Powley, Tanya, and Claire Bushey. (2020). *Wealthy switch to private jets to avoid coronavirus*. Financial Times (London), [Published July 25 2020], [Cited July 26 2020]. <https://www.ft.com/content/063785d0-ed9a-4eae-b4ba-8a56cf59e905>
- Akam, Simon. (2020). *The inside story of Britain's fight against covid-19*. 1843 Magazine (Economist), [Published July 26 2020], [Cited September 10 2020]. <https://www.economist.com/1843/2020/07/26/the-inside-story-of-britains-fight-against-covid-19>
- Thomas, Daniel, Stephen Morris, and Oliver Ralph. (2020). *Coronavirus turns the City into a ghost town*. Financial Times (London), [Published July 27 2020], [Cited July 27 2020]. <https://www.ft.com/content/5281b079-d7da-49d0-a16c-a62c8f1a123f>
- BBC. (2020bg). *Sainsbury's to try out virtual queuing system*. British Broadcasting Corporation (BBC), [Published July 28 2020bg], [Cited July 28 2020]. <https://www.bbc.co.uk/news/technology-53569086>
- Grady, Jo. (2020). *Around 30,000 jobs may be on the line at universities. We have to fight back*. Guardian (UK), [Published July 28 2020], [Cited July 28 2020]. <https://www.theguardian.com/education/2020/jul/28/around-30000-jobs-may-be-on-the-line-at-universities-we-have-to-fight-back>
- Stubley, Peter. (2020b). *Coronavirus: Most people don't trust UK government's advice on when it is safe to resume normal life, poll finds*. Independent (London), [Published July 28 2020b], [Cited July 31 2020]. <https://www.independent.co.uk/news/uk/politics/coronavirus-uk-poll-boris-johnson-government-lockdown-end-a9640976.html>
- COMMONS. (2020c). *Readying the NHS and social care for the COVID-19 peak*. House of Commons, Public Accounts Select Committee, [Published July 29 2020c], [Cited July 29 2020]. <https://publications.parliament.uk/pa/cm5801/cmselect/cmpubacc/405/40502.htm>
- Bounds, Andy, and Sarah Neville. (2020). *Outbreaks highlight disparities in UK test and trace regimes*. Financial Times (London), [Published July 30 2020], [Cited July 31 2020]. <https://www.ft.com/content/f0be6eaa-c512-4006-b4dd-e5e0ed2c0ce1>
- Butler, Patrick. (2020c). *Cummings trips damaged UK lockdown unity, study suggests*. Guardian (UK), [Published July 30 2020c], [Cited July 30 2020]. <https://www.theguardian.com/politics/2020/jul/30/cummings-saga-damaged-uk-unity-covid-19-study-suggests>
- Thomas, Daniel. (2020b). *'Calm before the storm': UK small businesses fear for their future*. Financial Times (London), [Published July 20 2020b], [Cited July 30 2020]. <https://www.ft.com/content/2bef51e5-f581-4ef5-af95-3c344ed7a238>
- Weaver, Matthew. (2020). *Dominic Cummings undermined lockdown enforcement, says ex-Durham police chief*. Guardian (UK), [Published July 30 2020], [Cited July 30 2020]. <https://www.theguardian.com/politics/2020/jul/30/dominic-cummings-undermined-lockdown-enforcement-says-ex-durham-police-chief>
- Donnelly, Laura. (2020). *Prof Chris Whitty's 'trade-offs' warning could mean pubs closing so schools can open*. Daily Telegraph (London), [Published July 31 2020], [Cited July 31 2020]. <https://www.telegraph.co.uk/news/2020/07/31/prof-chris-whittys-trade-offs-warning-could-mean-pubs-closing/>
- Kelly, Jemima. (2020a). *Does anyone know what the coronavirus rules are any more?* Financial Times (London), [Published July 31 2020a], [Cited July 31 2020]. <https://ftalphaville.ft.com/2020/07/30/1596113261000/Does-anyone-know-what-the-coronavirus-rules-are-any-more--/>
- Pollock, Allyson. (2020). *Thanks to outsourcing, England's test and trace system is in chaos*. Guardian (UK), [Published July 31 2020], [Cited July 31 2020]. <https://www.theguardian.com/commentisfree/2020/jul/31/outsourcing-england-test-trace-nhs-private>

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- SMC. (2020c). *Poverty and Covid-19*. Social Metrics Commission (UK), [Published August 2020c], [Cited August 28 2020]. <https://socialmetricscommission.org.uk/poverty-and-covid-2/>

- Manthorpe, Roland, and Aubrey Allegretti. (2020). *Coronavirus: Sandwell Council sets up own contact tracing system amid anger with government's version*. Sky.com, [Published August 1 2020], [Cited August 2 2020]. <https://news.sky.com/story/coronavirus-sandwell-council-sets-up-own-contact-tracing-system-amid-anger-with-governments-version-12038597>
- Selby, Alan, Amy Sharpe, and Chris McLaughlin. (2020). *Boris Johnson 'sleepwalking' into second wave with chaotic handling of coronavirus crisis*. Daily Mirror (London), [Published August 1 2020], [Cited August 1 2020]. <https://www.mirror.co.uk/news/politics/boris-johnson-sleepwalking-second-wave-22455084>
- Adams, Richard. (2020c). *Pay rise for teachers will halve school funding boost in England*. Guardian (UK), [Published August 2 2020c], [Cited August 3 2020]. <https://www.msn.com/en-gb/news/uknews/pay-rise-for-teachers-will-halve-school-funding-boost-in-england/ar-BB17tW31>
- Cole, William, and Joe Middleton. (2020). *Millions of over 50s could be told to stay at home to avoid a blanket second lockdown under 'nuclear plans' drawn up by Boris Johnson after bubble bursts on easing lockdown*. Daily Mail (London), [Published August 2 2020], [Cited August 2 2020]. <https://www.dailymail.co.uk/news/article-8584445/Over-50s-face-stay-home-order-nuclear-plans-drawn-Boris-Johnson.html>
- Helm, Toby, and Robin McKie. (2020). *Teachers and scientists sound alarm over plans to reopen schools in England*. Guardian (UK), [Published August 2 2020], [Cited August 2 2020]. <https://www.theguardian.com/education/2020/aug/01/now-teachers-sound-alarm-over-plans-to-reopen-schools>
- Hughes, Laura. (2020). *Downing Street confirms lockdowns possible for England's cities*. Financial Times (London), [Published August 3 2020], [Cited August 3 2020]. <https://www.ft.com/content/e6cc1345-4553-4b11-930d-6b69ff5bb834>
- Mulheirn, Ian. (2020). *The government is playing a very dangerous game over its lockdown strategy*. Independent (London), [Published August 3 2020], [Cited August 3 2020]. <https://www.independent.co.uk/voices/coronavirus-lockdown-manchester-deaths-boris-johnson-hancock-second-wave-a9650981.html>
- OfS. (2020). *'Digital poverty' risks leaving students behind*. Office for Students (UK), [Published September 3 2020], [Cited September 8 2020]. <https://www.officeforstudents.org.uk/news-blog-and-events/press-and-media/digital-poverty-risks-leaving-students-behind/>
- Burns, Judith. (2020e). *Early-years workers quit 'underpaid and undervalued' jobs*. British Broadcasting Corporation (BBC), [Published August 5 2020e], [Cited August 5 2020]. <https://www.bbc.co.uk/news/education-53649895>
- Collinson, Anna. (2020). *Coronavirus: Ethnic minorities 'over-exposed' to Covid-19*. British Broadcasting Corporation (BBC), [Published August 5 2020], [Cited August 5 2020]. <https://www.bbc.co.uk/news/health-53651954>
- COMMONS. (2020d). *Home Office preparedness for COVID-19 (coronavirus): management of the borders*. House of Commons, Home Affairs Select Committee, [Published August 5 2020d], [Cited August 5 2020]. <https://publications.parliament.uk/pa/cm5801/cmselect/cmhaff/563/56302.htm>
- Longfield, Anne. (2020). *Children and schools must come before pubs and shops in planning for future Covid-19 lockdowns*. Children's Commissioner for England, [Published August 5 2020], [Cited August 5 2020]. <https://www.childrenscommissioner.gov.uk/2020/08/05/children-and-schools-must-come-before-pubs-and-shops-in-planning-for-future-covid-19-lockdowns/>
- Marsh, Sarah, and Molly Blackall. (2020). *England's contact tracers 'making handful of calls' a month*. Guardian (UK), [Published August 5 2020], [Cited August 5 2020]. <https://www.theguardian.com/world/2020/aug/05/englands-contact-tracers-making-handful-of-calls-a-month>
- Sellgren, Katherine. (2020d). *Schools 'must come before pubs and restaurants in future'*. British Broadcasting Corporation (BBC), [Published August 5 2020d], [Cited August 5 2020]. <https://www.bbc.co.uk/news/education-53650648>

SUN. (2020). *THE SUN SAYS Sex ban at home but not in hotels is bonkers – we need clarity to beat coronavirus*. The Sun (UK), [Published August 5 2020], [Cited August 5 2020]. <https://www.thesun.co.uk/news/12314143/sex-ban-at-home-but-not-in-hotels-is-bonkers/>

Dawson, Bethany. (2020). *Coronavirus: University life may 'pose further risk' to young shielders*. British Broadcasting Corporation (BBC), [Published August 6 2020], [Cited August 6 2020]. <https://www.bbc.co.uk/news/disability-53552077>

Halliday, Josh, Niamh McIntyre, and Peter Walker. (2020). *Councils in England to be offered near real-time data on Covid cases*. Guardian (UK), [Published August 6 2020], [Cited August 6 2020]. <https://www.theguardian.com/society/2020/aug/06/councils-in-england-to-be-offered-near-real-time-data-on-covid-cases>

Stephens, Philip. (2020). *How Boris Johnson lost control*. Financial Times (London), [Published August 6 2020], [Cited August 7 2020]. <https://www.ft.com/content/f029ebf7-557c-46cc-81ca-ae94202d5229>

Buchanan, Michael. (2020). *Coronavirus: London's commuter towns see sharp rise in benefit claims*. British Broadcasting Corporation (BBC), [Published August 7 2020], [Cited August 7 2020]. <https://www.bbc.co.uk/news/uk-53697256>

Havergal, Chris. (2020). *Covid-19: don't gamble with health, says union after Sage report*. Times Higher Education, [Published September 7 2020], [Cited September 8 2020]. <https://www.timeshighereducation.com/news/covid-19-dont-gamble-health-says-union-after-sage-report>

Innes, Dave, Rebecca McDonald, and Sam Bennett. (2020). *Targeted action for parts of Britain at risk of surging unemployment*. Joseph Rowntree Foundation, [Published August 7 2020], [Cited August 10 2020]. <https://www.jrf.org.uk/blog/targeted-action-parts-britain-risk-surging-unemployment>

BBC. (2020bh). *Coronavirus: Moral duty to get all children back in school - Boris Johnson*. British Broadcasting Corporation (BBC), [Published August 9 2020bh], [Cited August 9 2020]. <https://www.bbc.co.uk/news/uk-53710472>

Hughes, Laura, Anna Gross, and Andy Bounds. (2020). *UK government abandons centralised approach to contact tracing in England*. Financial Times (London), [Published August 10 2020], [Cited August 10 2020]. <https://www.ft.com/content/b1f0fe23-a8e0-4c6c-b484-d55d6893ef6f>

Bloom, Dan. (2020). *Zero-hour contracts top a million as benefits surge - 6 grim job stats out today*. Daily Mirror (London), [Published August 11 2020], [Cited August 12 2020]. <https://www.mirror.co.uk/news/politics/breaking-zero-hour-contracts-top-22501848>

Strauss, Delphine. (2020a). *UK sheds nearly 750,000 jobs during coronavirus crisis*. Financial Times (London), [Published August 11 2020a], [Cited August 11 2020]. <https://www.ft.com/content/c8ef84bf-0539-4281-b353-d5b840d10b5e>

AFP. (2020). *UK economy crashes into recession after 20.4% second quarter slump; braces for spike in unemployment rate*. Agence France Presse, [Published August 12 2020], [Cited August 12 2020]. <https://www.firstpost.com/world/uk-crashes-into-recession-after-economy-shrinks-by-20-4-in-second-quarter-due-to-coronavirus-pandemic-8699411.html>

Eaton, John. (2020a). *The UK suffers the worst recession of any G7 country*. New Statesman, [Published August 12 2020a], [Cited August 14 2020]. <https://www.newstatesman.com/politics/economy/2020/08/uk-suffers-worst-recession-any-g7-country>

Boyle, Darren. (2020). *Coronavirus crisis sees job applications rise from an average of 25 to thousands for every role as Britons desperate for work apply for jobs they might have overlooked in the past*. Daily Mail (London), [Published August 13 2020], [Cited August 13 2020]. <https://www.dailymail.co.uk/news/article-8623379/Coronavirus-crisis-sees-thousands-applicants-competing-role.html>

Minihane, Joe. (2020). *Overcrowded, overpriced and overwhelmed. The UK's Covid-19 staycation nightmare*. CNN, [Published August 15 2020], [Cited August 15 2020]. <https://edition.cnn.com/travel/article/uk-covid-19-staycation-nightmare/index.html>

Smithers, Rebecca. (2020). *Tesco to take on Amazon with free home delivery for premium cardholders*. Guardian (UK), [Published August 16 2020], [Cited August 18 2020].

<https://www.theguardian.com/business/2020/aug/16/tesco-to-take-on-amazon-with-free-home-delivery-for-premium-cardholders>

Bentley, David, and Bret Gibbons. (2020). *Universal Credit claims soar among over-50s as pandemic jobs' crisis hits older workers*. MyLondon, [Published August 17 2020], [Cited August 19 2020].

<https://www.mylondon.news/news/uk-world-news/universal-credit-claims-soar-among-18780484>

Dickie, Mure, and Emiko Terazono. (2020). *Coronavirus crisis fuels interest in vertical farming*. Financial Times (London), [Published August 17 2020], [Cited August 17 2020].

<https://www.ft.com/content/ea955c9e-c686-4502-a974-1778b9e5f695>

Standage, Tom. (2020). *Covid-19 is changing lift etiquette: What the history of the elevator can teach us about social distancing*. 1843 Magazine (Economist), [Published August 17 2020], [Cited September 10 2020]. <https://www.economist.com/1843/2020/08/17/covid-19-is-changing-lift-etiquette>

Schraer, Rachel. (2020). *Depression doubles during coronavirus pandemic*. British Broadcasting Corporation (BBC), [Published August 18 2020], [Cited August 18 2020].

<https://www.bbc.co.uk/news/health-53820425>

Thomas, Daniel, and Delphine Strauss. (2020). *UK faces white-collar jobs crisis as pandemic ends decades of job security*. Financial Times (London), [Published August 18 2020], [Cited August 18 2020].

<https://www.ft.com/content/596e49d9-1283-47b3-a771-1c0beebd7df5>

Bradshaw, Tim. (2020). *Warning that contact-tracing apps will fail without high uptake*. Financial Times (London), [Published August 19 2020], [Cited August 20 2020]. <https://www.ft.com/content/f00483e1-d5f9-4ef4-8dac-01b89cf50ec9>

Baksi, Catherine. (2020). *Hundreds of thousands face eviction, housing charities warn*. The Law Gazette, [Published August 20 2020], [Cited August 20 2020]. <https://www.lawgazette.co.uk/law/hundreds-of-thousands-face-eviction-housing-charities-warn/5105380.article>

Goodwin, Henry. (2020a). *McKinsey paid £560,000 to decide 'vision' of new public health body*. The London Economic, [Published August 20 2020a], [Cited August 20 2020].

<https://www.thelondoneconomic.com/politics/mckinsey-paid-560000-to-decide-vision-of-new-public-health-body/20/08/>

Mellor, Joe. (2020a). *Williamson was warned algorithm impacted on poorer pupils but Schools Minister denies it did*. The London Economic, [Published August 20 2020a], [Cited August 20 2020].

<https://www.thelondoneconomic.com/news/williamson-was-warned-algorithm-impacted-on-poorer-pupils-but-schools-minister-denies-it-did/20/08/>

Wakefield, Jane. (2020c). *A-levels: Ofqual's 'cheating' algorithm under review*. British Broadcasting Corporation (BBC), [Published August 20 2020c], [Cited August 20 2020].

<https://www.bbc.co.uk/news/technology-53836453>

ECONOMIST. (2020k). *Mass unemployment threatens Britain*. Economist, [Published August 22 2020k], [Cited August 27 2020]. <https://www.economist.com/britain/2020/08/22/mass-unemployment-threatens-britain>

Stokel-Walker, Chris. (2020a). *The UK's universities are bracing for a coronavirus train wreck*.

Wired.com, [Published August 22 2020a], [Cited August 25 2020].

<https://www.wired.co.uk/article/university-places-clearing-acceptance>

Lintern, Shaun. (2020a). *Coronavirus: Study reveals alarming impact of Covid on care home sector*.

Independent (London), [Published August 23 2020a], [Cited August 25 2020].

<https://www.independent.co.uk/news/health/coronavirus-care-homes-covid-nursing-covid-uk-a9681576.html>

Harris, John. (2020b). *'Devastation': how aviation industry's Covid crisis is hitting towns across UK*.

Guardian (UK), [Published August 24 2020b], [Cited August 24 2020].

<https://www.theguardian.com/business/2020/aug/24/devastation-how-aviation-industrys-covid-crisis-is-hitting-towns-across-uk>

Hill, Andrew, Emma Jacobs, Leila Abboud, Guy Chazan, Joe Miller, Nicolle Liu, Leo Lewis, Peter Wise, Daniel Dombey, Richard Milne, Silvia Sciorilli Borrelli, and Joe Leahy. (2020). *Why workers in some*

countries are more comfortable about returning to the office. Financial Times (London), [Published August 24 2020], [Cited August 25 2020]. <https://www.ft.com/content/84463da4-4aa6-433b-8490-f79ed86eedef>

Lintern, Shaun. (2020b). *Coronavirus: Safety watchdog to probe hospital spread of Covid-19*. Independent (London), [Published August 25 2020b], [Cited August 25 2020]. <https://www.independent.co.uk/news/health/coronavirus-nhs-hospital-infection-spread-safety-watchdog-winter-a9686991.html>

ONS. (2020o). *Coronavirus and occupational switching: January to June 2020*. Office for National Statistics (UK), [Published August 25 2020o], [Cited August 25 2020]. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusandoccupationalswitching/januarytojune2020>

BBC. (2020bi). *Coronavirus: UK 'could lose £60m a day' as tourism slumps*. British Broadcasting Corporation (BBC), [Published August 26 2020bi], [Cited August 26 2020]. <https://www.bbc.co.uk/news/business-53921106>

Coughlan, Sean. (2020n). *A-levels and GCSEs: Boris Johnson blames 'mutant algorithm' for exam fiasco*. British Broadcasting Corporation (BBC), [Published August 26 2020n], [Cited August 27 2020]. <https://www.bbc.co.uk/news/education-53923279>

Jack, Simon. (2020). *No plan for a return to the office for millions of staff*. British Broadcasting Corporation (BBC), [Published August 26 2020], [Cited August 26 2020]. <https://www.bbc.co.uk/news/business-53901310>

Marques Santos, Anabela, Carmen Madrid González, Karel Haegeman, and Alessandro Rainoldi. (2020). *Behavioural changes in tourism in times of Covid-19: Employment scenarios and policy options*. Joint Research Centre (European Commission), [Published August 26 2020], [Cited September 4 2020]. <https://op.europa.eu/en/publication-detail/-/publication/7174abf8-e80a-11ea-ad25-01aa75ed71a1/language-en/format-PDF/source-150753379>

BBC. (2020bj). *Coronavirus: Payment for people on low incomes who must self-isolate*. British Broadcasting Corporation (BBC), [Published August 27 2020bj], [Cited August 27 2020]. <https://www.bbc.co.uk/news/uk-53926977>

BBC. (2020bk). *Pret A Manger to cut over a third of UK workforce*. British Broadcasting Corporation (BBC), [Published August 27 2020bk], [Cited August 27 2020]. <https://www.bbc.co.uk/news/business-53939526>

Cambridge, Ellie. (2020). *Off you go: Brits warned 'go back to work or risk losing your job' as Boris Johnson urges people to return to the office*. The Sun (UK), [Published August 27 2020], [Cited August 28 2020]. <https://www.thesun.co.uk/news/12519726/brits-told-go-back-to-office-boris-johnson/>

Gallagher, Sophie. (2020c). *Winter is coming: How worried should we be about coronavirus?* Independent (London), [Published August 27 2020c], [Cited September 3 2020]. <https://www.independent.co.uk/life-style/health-and-families/coronavirus-winter-second-wave-lockdown-boris-johnson-a9648496.html>

Hutchings, Rachael. (2020). *The impact of Covid-19 on the use of digital technology in the NHS*. Nuffield Trust, [Published August 27 2020], [Cited August 31 2020]. <https://www.nuffieldtrust.org.uk/research/the-impact-of-covid-19-on-the-use-of-digital-technology-in-the-nhs>

Greening, Justine. (2020). *'Levelling up' the UK starts with schools*. Financial Times (London), [Published August 28 2020], [Cited August 28 2020]. <https://www.ft.com/content/b4a9cac9-0c19-48cd-a6d5-1526fbae7418>

Heffer, Greg. (2020b). *Coronavirus: 'It's now safe to go back to work' - Government advertising to encourage return to offices*. Sky.com, [Published August 28 2020b], [Cited August 28 2020]. <https://news.sky.com/story/coronavirus-its-now-safe-to-go-back-to-work-government-advertising-to-encourage-return-to-offices-12058176>

Manthorpe, Roland. (2020a). *Exams algorithm was not 'mutant' and contained 'predictable' errors*. Sky.com, [Published August 28 2020a], [Cited August 28 2020]. <https://www.msn.com/en-gb/news/uknews/exams-algorithm-was-not-mutant-and-contained-predictable-errors/ar-BB18rMmP>

Oerti, Karin. (2020). *How digital innovations helped banks adapt during COVID-19*. World Economic Forum, [Published August 28 2020], [Cited August 28 2020].
<https://www.weforum.org/agenda/2020/08/how-digital-innovations-helped-banks-adapt-during-covid-19/>

BBC. (2020b). *Coronavirus: University return 'could spark Covid avalanche'*. British Broadcasting Corporation (BBC), [Published August 30 2020b], [Cited August 31 2020].
<https://www.bbc.co.uk/news/education-53947488>

Staton, Bethan. (2020a). *Sense of trepidation taints return to the classroom*. Financial Times (London), [Published August 30 2020a], [Cited August 31 2020]. <https://www.ft.com/content/4bbe36-7923-46f6-a841-3e859934f3b0>

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Lilly, Alice, Gemma Tetlow, Oliver Davies, and Thomas Pope. (2020). *The cost of Covid-19: The impact of coronavirus on the UK's public finances*. Institute for Government (UK), [Published September 2020], [Cited October 4 2020]. <https://www.instituteforgovernment.org.uk/sites/default/files/publications/cost-of-covid19.pdf>

Adams, Richard, and Heather Stewart. (2020). *Williamson told about flaws in A-level model two weeks before results*. Guardian (UK), [Published September 1 2020], [Cited September 2 2020].
<https://www.theguardian.com/education/2020/sep/01/williamson-told-about-flaws-in-a-level-model-two-weeks-before-results>

Culbertson, Alix. (2020). *Coronavirus: PM warns 'more wretched COVID' to come - but says government can deal with outbreaks*. Sky.com, [Published September 1 2020], [Cited September 2 2020].
<https://news.sky.com/story/coronavirus-pm-warns-more-wretched-covid-to-come-but-says-government-can-deal-with-outbreaks-12061152>

Pickard, Jim. (2020). *Boris Johnson quizzed over claim workers have returned to offices*. Financial Times (London), [Published September 1 2020], [Cited September 2 2020].
<https://www.ft.com/content/288c74d2-4acb-4c74-8f9e-458906a8efbd>

Baggini, Julian. (2020). *It'll take more than a soup-and-shakes diet plan to tackle obesity in the UK*. Guardian (UK), [Published September 2 2020], [Cited September 2 2020].
<https://www.theguardian.com/commentisfree/2020/sep/02/soup-and-shakes-diet-plan-obesity-uk-government-processed-foods-food-poverty>

Moore, Thomas. (2020). *Coronavirus: Warning over second wave unless deprived areas are targeted*. Sky.com, [Published September 2 2020], [Cited September 2 2020].
<https://news.sky.com/story/coronavirus-warning-over-second-wave-unless-deprived-areas-are-targeted-12061083>

Richardson, Hannah. (2020i). *Ofqual warned grades system would not win public support*. British Broadcasting Corporation (BBC), [Published September 2 2020i], [Cited September 2 2020].
<https://www.bbc.co.uk/news/education-53998744>

Stokel-Walker, Chris. (2020b). *How supermarkets are dodging a second panic-buying calamity*. Wired.com, [Published October 2 2020b], [Cited October 8 2020].
<https://www.wired.co.uk/article/supermarkets-second-panic-wave-coronavirus>

BBC. (2020bm). *Eat Out to Help Out: Diners claim 100 million meals in August*. British Broadcasting Corporation (BBC), [Published September 3 2020bm], [Cited September 3 2020].
<https://www.bbc.co.uk/news/business-54015221>

Heren, Kit. (2020). *Coronavirus 'could be endemic in deprived parts of the UK', according to leaked Public Health England*. Evening Standard (London), [Published September 3 2020], [Cited September 8 2020].
<https://www.standard.co.uk/news/uk/coronavirus-endemic-deprived-parts-uk-public-health-england-a4541166.html>

DfE. (2020c). *Get laptops and tablets for children who cannot attend school due to coronavirus (COVID-19)*. Department for Education (UK), [Published September 4 2020c], [Cited September 10 2020].
<https://www.gov.uk/guidance/get-laptops-and-tablets-for-children-who-cannot-attend-school-due-to-coronavirus-covid-19>

- ECONOMIST. (2020). *Covid-19 strengthens the case for digital ID cards*. Economist, [Published September 5 2020], [Cited September 16 2020]. <https://www.economist.com/leaders/2020/09/05/covid-19-strengthens-the-case-for-digital-id-cards>
- Carter, Jessica. (2020). *Working in restaurants after lockdown is a living hell*. Wired.com, [Published September 6 2020], [Cited September 8 2020]. <https://www.wired.co.uk/article/restaurants-eat-out-scheme-coronavirus>
- Naughton, John. (2020b). *From viral conspiracies to exam fiascos, algorithms come with serious side effects*. Guardian (UK), [Published September 6 2020b], [Cited September 6 2020]. <https://www.theguardian.com/technology/2020/sep/06/from-viral-conspiracies-to-exam-fiascos-algorithms-come-with-serious-side-effects>
- Beaumont, Mark. (2020). *64 per cent of musicians may quit due to lack of help from the Government. What can be done?* NME.com, [Published September 7 2020], [Cited September 9 2020]. <https://www.nme.com/features/excluded-choir-one-more-day-rishi-sunak-2746402>
- BBC. (2020bn). *Coronavirus: Up to £3.5bn furlough claims fraudulent or paid in error - HMRC*. British Broadcasting Corporation (BBC), [Published September 8 2020bn], [Cited September 8 2020]. <https://www.bbc.co.uk/news/business-54066815>
- Brady, Enda. (2020). *Coronavirus: Mental health campaign for young people launches as third say they are sadder than before lockdown*. Sky.com, [Published September 8 2020], [Cited September 8 2020]. <https://news.sky.com/story/mental-health-campaign-for-young-people-launches-as-third-say-they-are-sadder-than-before-lockdown-12066272>
- Gibbons, Amy. (2020c). *MPs told of 158 Covid schools, but DfE won't confirm*. Times Educational Supplement, [Published September 8 2020c], [Cited September 8 2020]. <https://www.tes.com/news/coronavirus-mps-told-158-covid-schools-dfe-wont-confirm>
- Gill, Emma. (2020). *Thousands of children are now self-isolating after at least 32 Greater Manchester schools reported Covid cases*. Manchester Evening News, [Published September 8 2020], [Cited September 8 2020]. <https://www.manchestereveningnews.co.uk/news/greater-manchester-news/schools-coronavirus-covid-pupils-manchester-18900538>
- Horton, Richard. (2020). *Covid-19 has exposed the reality of Britain: poverty, insecurity and inequality*. Guardian (UK), [Published September 8 2020], [Cited September 8 2020]. <https://www.theguardian.com/commentisfree/2020/sep/08/covid-19-britain-poverty-insecurity-inequality-fairer-society>
- NUS. (2020). *Coronavirus and Students Survey Phase II*. National Union of Students (UK), [Published September 8 2020], [Cited September 8 2020]. <https://www.nus.org.uk/en/news/coronavirus-and-students-survey-phase-ii1/?load=5&top=432>
- Triggle, Nick. (2020c). *Coronavirus: New figures show UK faces 'impossible balancing act'*. British Broadcasting Corporation (BBC), [Published September 8 2020c], [Cited September 8 2020]. <https://www.bbc.co.uk/news/health-54064339>
- Anon. (2020). *No powers for 'Covid-secure marshals' to enforce new rules*. ITV, [Published September 10 2020], [Cited September 10 2020]. <https://www.itv.com/news/2020-09-10/no-powers-for-covid-secure-marshals-to-enforce-new-rules>
- Harford, Tim. (2020c). *Statistics, lies and the virus: Tim Harford's five lessons from a pandemic*. Financial Times (London), [Published September 10 2020c], [Cited September 13 2020]. <https://www.ft.com/content/92f64ea9-3378-4ffe-9fff-318ed8e3245e>
- Partington, Richard. (2020a). *No rise in workers in UK city centres despite back-to-office plea*. Guardian (UK), [Published September 10 2020a], [Cited September 10 2020]. <https://www.theguardian.com/world/2020/sep/10/neil-ferguson-expert-questions-drive-to-get-people-back-into-offices-in-england>
- BBC. (2020bo). *Furlough 'must be extended' to avoid mass unemployment, say MPs*. British Broadcasting Corporation (BBC), [Published September 11 2020bo], [Cited September 11 2020]. <https://www.bbc.co.uk/news/business-54100588>

- COMMONS. (2020e). *Chancellor should “carefully consider” targeted extensions to Job Retention Scheme, urges Treasury Committee*. House of Commons, Treasury Select Committee, [Published September 11 2020e], [Cited September 13 2020]. <https://committees.parliament.uk/committee/158/treasury-committee/news/117449/chancellor-should-carefully-consider-targeted-extensions-to-job-retention-scheme-urges-treasury-committee/>
- O'Brien, Amy. (2020a). *Young people want to let off steam, not kill their grans*. Financial Times (London), [Published September 11 2020a], [Cited September 13 2020]. <https://www.ft.com/content/aa4429bb-6623-423b-84b3-a580767c6dff>
- ECONOMIST. (2020m). *Away from the bustle: Covid-19 and the end of commuterland*. Economist, [Published September 12 2020m], [Cited September 10 2020]. <https://www.economist.com/britain/2020/09/12/covid-19-and-the-end-of-commuterland>
- ECONOMIST. (2020n). *The future of the office: Covid-19 has forced a radical shift in working habits*. Economist, [Published September 12 2020n], [Cited September 10 2020]. <https://www.economist.com/briefing/2020/09/12/covid-19-has-forced-a-radical-shift-in-working-habits>
- Coughlan, Sean. (2020o). *Coronavirus: The story of the big U-turn of the summer*. British Broadcasting Corporation (BBC), [Published September 13 2020o], [Cited September 13 2020]. <https://www.bbc.co.uk/news/education-54103612>
- Golby, Joel. (2020). *Is this the end of the buffet?* Guardian (UK), [Published September 13 2020], [Cited September 13 2020]. <https://www.theguardian.com/food/2020/sep/13/joel-golby-end-of-the-buffet-in-covid-19>
- BBC. (2020bp). *Coronavirus: Priti Patel explains why mingling is against restrictions*. British Broadcasting Corporation (BBC), [Published September 15 2020bp], [Cited September 15 2020]. <https://www.bbc.co.uk/news/av/uk-54158628>
- BBC. (2020bq). *School figures show 88% of pupils were back for start of term*. British Broadcasting Corporation (BBC), [Published September 15 2020bq], [Cited September 16 2020]. <https://www.bbc.co.uk/news/education-54164487>
- Harvey, Fiona. (2020). *Road congestion levels in outer London higher than before lockdown*. Guardian (UK), [Published September 15 2020], [Cited September 15 2020]. <https://www.theguardian.com/environment/2020/sep/15/road-congestion-levels-in-outer-london-higher-than-before-lockdown>
- O'Connor, Sarah. (2020c). *Do not let homeworking become digital piecework for the poor*. Financial Times (London), [Published September 15 2020c], [Cited September 18 2020]. <https://www.ft.com/content/ab83270c-253a-4d7a-9ef8-a360d2e04aab>
- BBC. (2020br). *'Nearly two-thirds' of workers commuting again, says ONS*. British Broadcasting Corporation (BBC), [Published September 17 2020br], [Cited September 18 2020]. <https://www.bbc.co.uk/news/business-54194958>
- Elgot, Jessica. (2020b). *'Sneak culture': Boris Johnson appears to criticise Priti Patel for rule of six snooping*. Guardian (UK), [Published September 17 2020b], [Cited September 17 2020]. <https://www.theguardian.com/world/2020/sep/17/sneak-culture-boris-johnson-priti-patel-rule-of-six-snooping-england-covid>
- BBC. (2020bs). *UK DIY sales soar but clothing stores fall behind*. British Broadcasting Corporation (BBC), [Published September 18 2020bs], [Cited September 18 2020]. <https://www.bbc.co.uk/news/uk-54201617>
- Burns, Judith. (2020f). *Schools in poorer areas lack catch-up cash*. British Broadcasting Corporation (BBC), [Published September 18 2020f], [Cited September 18 2020]. <https://www.bbc.co.uk/news/education-54195616>
- ONS. (2020p). *Coronavirus (COVID-19) related deaths by disability status, England and Wales: 2 March to 14 July 2020*. Office for National Statistics (UK), [Published September 18 2020p], [Cited September 23 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/coronaviruscovid19relateddeathsbydisabilitystatusenglandandwales/2marchto14july2020>

- Walker, Owen. (2020b). *Traders set to don virtual reality headsets in their home offices*. Financial Times (London), [Published September 18 2020b], [Cited September 20 2020]. <https://www.ft.com/content/7a551253-1f74-4f9a-8845-f9b7220dcca>
- O'Neill, Kara, and Amy Walker. (2020). *Boris Johnson 'worried about money' and 'being able to afford a nanny' on £150k PM wage*. Manchester Evening News, [Published September 19 2020], [Cited September 22 2020]. <https://www.manchestereveningnews.co.uk/news/uk-news/boris-johnson-worried-money-being-18963229>
- BBC. (2020bt). *Blackpool crowds ignore Covid 'last blast' warning*. British Broadcasting Corporation (BBC), [Published September 20 2020bt], [Cited September 20 2020]. <https://www.bbc.co.uk/news/uk-england-lancashire-54224544>
- BBC. (2020bu). *Coronavirus: Students' return could spark lockdown, say locals*. British Broadcasting Corporation (BBC), [Published September 20 2020bu], [Cited September 20 2020]. <https://www.bbc.co.uk/news/education-54205401>
- Halliday, Josh. (2020b). *Health official urges people not to flock to 'heaving' Blackpool*. Guardian (UK), [Published September 20 2020b], [Cited September 21 2020]. <https://www.theguardian.com/uk-news/2020/sep/20/health-official-urges-people-not-to-flock-to-heaving-blackpool-covid>
- BBC. (2020bv). *Coronavirus: Childcare exemption added to new restrictions in England*. British Broadcasting Corporation (BBC), [Published September 21 2020bv], [Cited September 21 2020]. <https://www.bbc.co.uk/news/uk-england-54240681>
- BBC. (2020bw). *Emergency measures to help train firms survive extended*. British Broadcasting Corporation (BBC), [Published September 21 2020bw], [Cited September 21 2020]. <https://www.bbc.co.uk/news/business-54232015>
- Christian, Alex. (2020). *Corporate snitches are using screen monitoring to find and fire slackers*. Wired.com, [Published September 21 2020], [Cited September 29 2020]. https://www.wired.co.uk/article/productivity-tracking-office-surveillance?utm_source=pocket-newtab-global-en-GB
- Coughlan, Sean. (2020p). *Quadrupling in schools sending home pupils in Covid cases*. British Broadcasting Corporation (BBC), [Published September 22 2020p], [Cited September 22 2020]. <https://www.bbc.co.uk/news/education-54250805>
- Havery, Gavin. (2020). *Concern student parties will spread Covid to communities*. Northern Echo (Newcastle), [Published September 22 2020], [Cited September 24 2020]. <https://www.thenorthernecho.co.uk/news/18736437.concern-student-parties-will-spread-covid-communities/>
- Morton, Becky. (2020). *Covid: School bus drivers fearful of coronavirus infection risk*. British Broadcasting Corporation (BBC), [Published September 22 2020], [Cited September 22 2020]. <https://www.bbc.co.uk/news/uk-54203100>
- Perrigo, Billy. (2020). *'A Perilous Turning Point.' How England's COVID-19 Reopening Went Terribly Wrong*. Time, [Published September 22 2020], [Cited September 22 2020]. https://time.com/5891509/uk-coronavirus-restrictions/?utm_source=pocket-newtab-global-en-GB
- COMMONS. (2020f). *Fears of "emerging crisis" in nursing after Covid*. House of Commons, [Published September 23 2020f], [Cited December 16 2020]. <https://committees.parliament.uk/committee/127/public-accounts-committee/news/119378/fears-of-emerging-crisis-in-nursing-after-covid/>
- ONS. (2020q). *Diary of a nation: life in lockdown*. Office for National Statistics (UK), [Published September 23 2020q], [Cited September 23 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/articles/diaryofanationlifeinlockdown/2020-09-23>
- Callaghan, Julia. (2020). *Homelessness to soar as UK eviction ban ends*. World Socialist Web Site, [Published September 24 2020], [Cited September 25 2020]. <https://www.wsws.org/en/articles/2020/09/24/evic-s24.html>
- ONS. (2020r). *Coronavirus (COVID-19) in 10 charts*. Office for National Statistics (UK), [Published September 24 2020r], [Cited September 24 2020].

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19in10charts/2020-09-24>

Richardson, Hannah. (2020j). *Hancock refuses to rule out Christmas student lockdown*. British Broadcasting Corporation (BBC), [Published September 24 2020], [Cited September 24 2020]. <https://www.bbc.co.uk/news/education-54278053>

Treasury. (2020d). *Winter Economy Plan*. HM Treasury (UK), [Published September 24 2020d], [Cited September 24 2020]. <https://www.gov.uk/government/publications/winter-economy-plan/winter-economy-plan>

UTG. (2020). *The Covid-19 Funding Gap: The Case for Continuing Support for Urban Public Transport*. Urban Transport Group, [Published September 24 2020], [Cited September 28 2020]. <https://www.urbantransportgroup.org/resources/types/reports/covid-19-funding-gap-case-continuing-support-urban-public-transport>

BBC. (2020bx). *Covid-hit university students: 'Why have they sent us here?'*. British Broadcasting Corporation (BBC), [Published September 25 2020bx], [Cited September 25 2020]. <https://www.bbc.co.uk/news/uk-scotland-54292728>

Elliott, Larry. (2020b). *Up to 6m poor families could be £1,000 worse off under Sunak's plan*. Guardian (UK), [Published September 25 2020b], [Cited September 25 2020]. <https://www.theguardian.com/politics/2020/sep/25/poor-families-1000-pounds-worse-off-under-sunak-winter-plan>

Resolution. (2020). *The Job Support Scheme will not support enough jobs – risking a major living standards squeeze*. Resolution Foundation, [Published September 25 2020], [Cited September 25 2020]. <https://www.resolutionfoundation.org/press-releases/the-job-support-scheme-will-not-support-enough-jobs-risking-a-major-living-standards-squeeze/>

BBC. (2020by). *Coronavirus: Students 'scared and confused' as halls lock down*. British Broadcasting Corporation (BBC), [Published September 26 2020by], [Cited September 27 2020]. <https://www.bbc.co.uk/news/uk-54308329>

Davies, Rob, Lucy Campbell, and Mattha Busby. (2020). *'It's a nightmare': the business owners left behind by Sunak's winter plan*. Guardian (UK), [Published September 26 2020], [Cited October 2 2020]. <https://www.theguardian.com/world/2020/sep/26/its-a-nightmare-the-business-owners-left-behind-by-sunaks-winter-plan>

ECONOMIST. (2020o). *Britain's experiment in radical rail privatisation is over: A new franchising system could follow*. Economist, [Published September 26 2020o], [Cited September 25 2020]. <https://www.economist.com/britain/2020/09/26/britains-experiment-in-radical-rail-privatisation-is-over>

Haque, Sarah. (2020). *The pandemic has killed cash*. Wired.com, [Published September 27 2020], [Cited October 8 2020]. <https://www.wired.co.uk/article/pandemic-cashless-society>

BBC. (2020bz). *Covid: About 40 universities report coronavirus cases*. British Broadcasting Corporation (BBC), [Published September 28 2020bz], [Cited September 28 2020]. <https://www.bbc.co.uk/news/uk-54322935>

Makortoff, Kalyeena. (2020). *Second Covid-19 wave could be 'knockout punch' for UK high street*. Guardian (UK), [Published September 28 2020], [Cited September 28 2020]. <https://www.theguardian.com/business/2020/sep/28/second-covid-19-wave-could-be-knockout-punch-for-uk-high-street>

Triggle, Nick. (2020d). *Covid: Is it time we learnt to live with the virus?* British Broadcasting Corporation (BBC), [Published September 28 2020d], [Cited September 28 2020]. <https://www.bbc.co.uk/news/health-54228649>

Thomas, Daniel, and Jim Pickard. (2020b). *Sunak warned taxpayer faces losses of up to £23bn in bad state loans*. Financial Times (London), [Published September 30 2020b], [Cited September 30 2020]. <https://www.ft.com/content/61802999-657f-41eb-bbbe-ae73840c06bb>

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Inman, Phillip. (2020b). *'Eat out to help out' did not boost hospitality sector finances – poll*. Guardian (UK), [Published October 1 2020b], [Cited October 1 2020].

<https://www.theguardian.com/business/2020/oct/01/eat-out-to-help-out-failed-boost-finances-uk-hospitality-industry>

Wilson, Antonia. (2020b). *Airport Covid testing could start within weeks, says Heathrow chief*. Guardian (UK), [Published October 1 2020b], [Cited October 3 2020].

<https://www.theguardian.com/travel/2020/oct/01/airport-covid-testing-could-start-within-weeks-says-heathrow-chief>

Fazackerley, Anna. (2020). *UK university student halls too full to be safe, experts warn*. Guardian (UK), [Published October 2 2020], [Cited October 2 2020].

<https://www.theguardian.com/education/2020/oct/02/uk-university-student-halls-too-full-to-be-safe-experts-warn>

NAO. (2020a). *Improving local bus services in England outside London*. National Audit Office (UK), [Published October 2 2020a], [Cited October 16 2020]. <https://www.nao.org.uk/report/improving-bus-services-in-england/>

Watson, Greig, and Neil Heath. (2020). *Nottingham students unhappy with conditions in 'prison' halls*. British Broadcasting Corporation (BBC), [Published October 2 2020], [Cited October 2 2020].

<https://www.bbc.co.uk/news/uk-england-nottinghamshire-54378072>

BBC. (2020ca). *Covid: Northumbria University confirms 770 cases among students*. British Broadcasting Corporation (BBC), [Published October 3 2020ca], [Cited October 3 2020].

<https://www.bbc.co.uk/news/uk-england-tyne-54394199>

Devanne, Michelle. (2020). *Charter plane brings Chinese Queen's University students to Belfast*. Belfast Telegraph, [Published October 3 2020], [Cited October 12 2020].

<https://www.belfasttelegraph.co.uk/news/northern-ireland/charter-plane-brings-chinese-queens-university-students-to-belfast-39585049.html>

Kelso, Paul. (2020). *The Economic Virus: The spiralling effect of COVID-19 job losses*. Sky.com, [Published October 3 2020], [Cited October 12 2020]. <https://news.sky.com/story/the-economic-virus-the-spiralling-effect-of-covid-19-job-losses-12085923>

Leishman, Fiona, and Alan Jones. (2020). *Job Entry Targeted Support: New employment scheme to help those 'out of work' because of Covid-19*. Cambridgeshire Alive, [Published October 5 2020], [Cited October 5 2020]. <https://www.cambridge-news.co.uk/news/uk-world-news/government-job-scheme-employment-coronavirus-19049108>

Thorpe, Vanessa. (2020). *Arts bailout delay leaves jobs at risk in UK and theatres on brink of ruin*. Guardian (UK), [Published October 5 2020], [Cited October 5 2020].

<https://www.theguardian.com/culture/2020/oct/04/arts-bailout-delay-leaves-jobs-at-risk-in-uk-and-theatres-on-brink-of-ruin>

Wearden, Graham. (2020). *New jobs coaches will help people back to work, says Rishi Sunak*. Guardian (UK), [Published October 5 2020], [Cited October 5 2020].

<https://www.theguardian.com/politics/2020/oct/05/new-jobs-coaches-will-help-people-back-to-work-says-rishi-sunak>

BBC. (2020cb). *Coronavirus: Manchester universities move teaching online*. British Broadcasting Corporation (BBC), [Published October 6 2020cb], [Cited October 7 2020].

<https://www.bbc.co.uk/news/uk-england-manchester-54442380>

Pidd, Helen. (2020c). *Manchester students organising 'Covid Positive' parties*. Guardian (UK), [Published October 6 2020c], [Cited October 6 2020].

<https://www.theguardian.com/education/2020/oct/06/manchester-students-organising-covid-positive-parties>

- Richardson, Hannah. (2020k). *Coronavirus: 18% of secondaries send pupils home to isolate*. British Broadcasting Corporation (BBC), [Published October 6 2020k], [Cited October 6 2020]. <https://www.bbc.co.uk/news/education-54435425>
- Barr, Caelainn, and Josh Halliday. (2020). *Poorest areas of England four times as likely to face lockdown as richest*. Guardian (UK), [Published October 7 2020], [Cited October 8 2020]. <https://www.theguardian.com/world/2020/oct/07/poorest-areas-of-england-four-times-as-likely-to-face-lockdown-as-richest>
- BBC. (2020cc). *Coronavirus: Health experts join global anti-lockdown movement*. British Broadcasting Corporation (BBC), [Published October 7 2020cc], [Cited October 7 2020]. <https://www.bbc.co.uk/news/health-54442386>
- Culbertson, Alix, and Carmen Aguilar-Garcia. (2020). *Coronavirus: Why public transport could be safer than we thought*. Sky.com, [Published October 7 2020], [Cited October 15 2020]. <https://news.sky.com/story/coronavirus-why-public-transport-could-be-safer-than-we-thought-12091657>
- Masters, Brooke. (2020b). *Covid sends rollercoasters on a big plunge*. Financial Times (London), [Published October 7 2020b], [Cited October 7 2020]. <https://www.ft.com/content/b7e4f300-9a50-4cd1-9bcc-1856e16cf2df>
- Spaven, Emily. (2020). *A third of UK professionals are actively looking for work*. LinkedIn.com, [Published October 7 2020], [Cited October 8 2020]. <https://www.linkedin.com/pulse/third-uk-professionals-actively-looking-work-emily-spaven>
- BBC. (2020cd). *Covid-19: Councils get millions of pounds for marshals*. British Broadcasting Corporation (BBC), [Published October 8 2020cd], [Cited October 8 2020]. <https://www.bbc.co.uk/news/uk-54462290>
- Cellan-Jones, Rory. (2020e). *NHS Covid-19 app: Why are some teachers being told not to use it?* British Broadcasting Corporation (BBC), [Published October 8 2020e], [Cited October 13 2020]. <https://www.bbc.co.uk/news/technology-54465356>
- ONS. (2020s). *Coronavirus and non-UK key workers*. Office for National Statistics (UK), [Published October 8 2020s], [Cited October 8 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/coronavirusandnonukkeyworkers/2020-10-08>
- Ahuja, Anjana. (2020b). *Covid-19 is really a syndemic — and that shows us how to fight it*. Financial Times (London), [Published October 9 2020b], [Cited October 11 2020]. <https://www.ft.com/content/34a502b1-5665-42ff-8a8d-1298b71f1e7b>
- Meredith, Robbie. (2020b). *Coronavirus: Rent holiday for QUB students who study at home*. British Broadcasting Corporation (BBC), [Published October 9 2020b], [Cited October 12 2020]. <https://www.bbc.co.uk/news/uk-northern-ireland-54472406>
- Bowden, George, and Lauren Turner. (2020). *Covid: Student anger over 'junk' food parcels in isolation*. British Broadcasting Corporation (BBC), [Published October 11 2020], [Cited October 11 2020]. <https://www.bbc.co.uk/news/uk-54486269>
- Foster, Peter, and Bethan Staton. (2020b). *Boris Johnson's education reforms face big hurdles, experts warn*. Financial Times (London), [Published October 12 2020b], [Cited October 13 2020]. <https://www.ft.com/content/d765104c-3edc-4b2b-babe-ceadfa5c2abf>
- Thomas, Daniel. (2020c). *UK's smallest businesses fight to survive the coronavirus crisis*. Financial Times (London), [Published October 12 2020c], [Cited October 13 2020]. <https://www.ft.com/content/a6b619d5-5e9b-48f5-822f-e82f5fb36f21>
- BBC. (2020ce). *Covid: Sage scientists called for short lockdown weeks ago*. British Broadcasting Corporation (BBC), [Published October 13 2020ce], [Cited October 13 2020]. <https://www.bbc.co.uk/news/uk-54518002>
- Booth, Robert. (2020a). *What has gone wrong with England's Covid test-and-trace system?* Guardian (UK), [Published October 13 2020a], [Cited October 13 2020]. <https://www.theguardian.com/world/2020/oct/13/what-has-gone-wrong-with-englands-covid-test-and-trace-system>

- Cable, Vince. (2020). *Boris Johnson could lose his 'red wall' seats due to pandemic incompetence*. Independent (London), [Published October 13 2020], [Cited October 20 2020]. <https://www.independent.co.uk/voices/boris-johnson-coronavirus-voters-red-wall-local-lockdown-tiers-b1012726.html>
- Coughlan, Sean. (2020q). *Covid secondary school disruption getting worse in England*. British Broadcasting Corporation (BBC), [Published October 13 2020q], [Cited October 13 2020]. <https://www.bbc.co.uk/news/education-54524291>
- Nelson, Sara C. (2020a). *Government Quietly Adds Extra Places To Lockdown List – After Mixing Up Northern Regions*. Huffington Post, [Published October 13 2020a], [Cited October 13 2020]. https://www.huffingtonpost.co.uk/entry/government-fumbled-tier-listings-last-night_uk_5f856b1ec5b6e6d033a76cd8
- Quinn, Ben. (2020). *Care homes in England to name relatives as key workers to allow visits*. Guardian (UK), [Published October 13 2020], [Cited October 13 2020]. <https://www.theguardian.com/society/2020/oct/13/relatives-to-be-named-as-care-home-key-workers-to-allow-visits-covid>
- Staton, Bethan, Jasmine Cameron-Chileshe, Andy Bounds, and Chris Tighe. (2020). *British youth count cost of Covid on their future*. Financial Times (London), [Published October 13 2020], [Cited October 13 2020]. <https://www.ft.com/content/1220ba66-de09-4507-8616-ef112cd2c109>
- Carr, Jemima. (2020). *Moment ARMED police served Liverpool gym owner with £1,000 fine after he refused to bow to Covid closedown order*. Daily Mail (London), [Published October 14 2020], [Cited October 15 2020]. <https://www.dailymail.co.uk/news/article-8841079/Armed-police-serve-Liverpool-gym-owner-fine-REFUSES-bow-Covid-closedown-order.html>
- Devlin, Kate. (2020). *Coronavirus: Universities to be asked to abandon face to face teaching ahead of Christmas break*. Independent (London), [Published October 14 2020], [Cited October 15 2020]. <https://www.independent.co.uk/news/education/education-news/coronavirus-university-christmas-lockdown-face-to-face-virtual-outbreak-b1041384.html>
- Gross, Anna, and Bethan Staton. (2020). *Universities expose uneven playing field on Covid testing*. Financial Times (London), [Published October 15 2020], [Cited October 16 2020]. <https://www.ft.com/content/eab5a84f-ef81-437b-9e40-34ab151ccfce>
- Pittam, David. (2020). *Coronavirus: 'Tier one ends at my garden wall'*. British Broadcasting Corporation (BBC), [Published October 15 2020], [Cited October 18 2020]. <https://www.bbc.co.uk/news/uk-england-nottinghamshire-54545077>
- Romei, Valentina, and John Burn-Murdoch. (2020). *From peak city to ghost town: the urban centres hit hardest by Covid-19*. Financial Times (London), [Published October 15 2020], [Cited October 15 2020]. <https://www.ft.com/content/d5b45dba-14dc-443b-8a8c-e9e9bbc3fb9a>
- Adams, Richard, and Sally Weale. (2020). *Almost half of Johnson's 'education catch-up' fund remains unallocated*. Guardian (UK), [Published October 16 2020], [Cited October 16 2020]. <https://www.theguardian.com/education/2020/oct/16/almost-half-of-johnsons-education-catch-up-fund-remains-unallocated>
- Cavendish, Camilla. (2020b). *Students bear the brunt of a public health panic*. Financial Times (London), [Published October 16 2020b], [Cited October 16 2020]. <https://www.ft.com/content/b8e94554-7726-4a79-aebc-aba0c3826e6c>
- Hancock, Alice, and Nikou Asgari. (2020). *British pubs in crisis as Covid calls last orders*. Financial Times (London), [Published October 16 2020], [Cited October 16 2020]. <https://www.ft.com/content/9cae3108-c314-4400-900f-32d789ac3da8>
- Hanley, Lynsey. (2020). *The real red wall: Liverpool, Covid-19 and the north-south divide*. Financial Times (London), [Published October 16 2020], [Cited October 18 2020]. <https://www.ft.com/content/afb01dca-dec4-4993-a608-09ad7f4e4176>
- Hewgill, Christian. (2020). *Gyms and coronavirus: What are the facts?* British Broadcasting Corporation (BBC), [Published October 16 2020], [Cited October 16 2020]. <https://www.bbc.co.uk/news/newsbeat-54540188>

- Hinsliff, Gaby. (2020). *The fear now gripping universities: will students come back in January?* Guardian (UK), [Published October 16 2020], [Cited October 16 2020]. <https://www.theguardian.com/commentisfree/2020/oct/16/universities-students-young-people-campus-ruin>
- Neville, Sarah, and Andy Bounds. (2020). *England's faltering test and trace turns to the experts*. Financial Times (London), [Published October 16 2020], [Cited October 16 2020]. <https://www.ft.com/content/8fafec01-8c57-4683-ab7b-7c4d273ecf0f>
- ONS. (2020t). *Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England and Wales: deaths occurring 2 March to 28 July 2020*. Office for National Statistics (UK), [Published October 16 2020t], [Cited October 17 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/deathsoccurring2marchto28july2020>
- ECONOMIST. (2020p). *Going full circuit: Britain should not resort to a new national lockdown*. Economist, [Published October 17 2020p], [Cited October 15 2020]. <https://www.economist.com/leaders/2020/10/17/britain-should-not-resort-to-a-new-national-lockdown>
- Otte, Jedidajah. (2020). *Police get access to people told to self-isolate by NHS test and trace*. Guardian (UK), [Published October 17 2020], [Cited October 18 2020]. <https://www.theguardian.com/world/2020/oct/17/police-get-access-to-people-told-of-self-isolate-by-nhs-test-and-trace>
- Mattinson, Deborah. (2020). *Handling of Covid-19 increases 'red wall' voters' complaints of government*. Guardian (UK), [Published October 18 2020], [Cited October 18 2020]. <https://www.theguardian.com/society/2020/oct/18/handling-of-covid-19-increases-red-wall-voters-complaints-of-government>
- Kirwen, Ellen. (2020). *Greater Manchester 'offered millions' to join Liverpool in Tier 3 lockdown*. Liverpool Echo, [Published October 19 2020], [Cited October 20 2020]. <https://www.liverpoolecho.co.uk/news/uk-world-news/greater-manchester-offered-millions-join-19126651>
- Kleinman, Zoe. (2020b). *Covid contact-tracing app not sharing data with police*. British Broadcasting Corporation (BBC), [Published October 19 2020b], [Cited October 19 2020]. <https://www.bbc.co.uk/news/technology-54599320>
- Murray, Jessica. (2020). *Charities fear impact of masks on deaf children in UK schools*. Guardian (UK), [Published October 19 2020], [Cited October 19 2020]. <https://www.theguardian.com/world/2020/oct/19/charities-fear-impact-of-masks-on-deaf-children-in-uk-schools>
- Patel, Parth, Alba Kapoor, and Nick Treloar. (2020). *Ethnic inequalities in Covid-19 are playing out again – how can we stop them?* Institute for Public Policy Research, [Published October 19 2020], [Cited November 2 2020]. <https://www.ippr.org/blog/ethnic-inequalities-in-covid-19-are-playing-out-again-how-can-we-stop-them>
- BBC. (2020cf). *Pupils sent home in half of England's secondary schools*. British Broadcasting Corporation (BBC), [Published October 20 2020cf], [Cited October 20 2020]. <https://www.bbc.co.uk/news/education-54614111>
- Taplin, Phoebe. (2020). *UK cities plan Covid-safe festivities as Christmas markets are cancelled*. Guardian (UK), [Published October 20 2020], [Cited October 20 2020]. <https://www.theguardian.com/travel/2020/oct/20/more-gloom-for-uk-tourism-covid-threatens-christmas-markets-and-events>
- BBC. (2020cg). *Boris Johnson blames London mayor for TfL 'bankruptcy' before Covid-19*. British Broadcasting Corporation (BBC), [Published October 21 2020cg], [Cited October 23 2020]. <https://www.bbc.co.uk/news/uk-england-london-54624961>
- Frith, Holden. (2020). *Schools do not spread Covid-19, multiple studies find*. The Week, [Published October 21 2020], [Cited October 21 2020]. <https://www.theweek.co.uk/108447/schools-do-not-spread-coronavirus-study>

- Partington, Richard. (2020b). *Changes to the coronavirus job support scheme in England explained*. Guardian (UK), [Published October 22 2020b], [Cited October 22 2020]. <https://www.theguardian.com/politics/2020/oct/22/changes-to-the-coronavirus-job-support-scheme-in-england-explained>
- Tomlinson, Daniel. (2020). *Sorting it out: The Chancellor moves to fix the Job Support Scheme*. Resolution Foundation, [Published October 22 2020], [Cited October 31 2020]. <https://www.resolutionfoundation.org/publications/sorting-it-out/>
- Lintern, Shaun. (2020c). *Mental health of coronavirus sufferers is being ignored, Royal College of Psychiatrists warns*. Independent (London), [Published October 23 2020c], [Cited October 25 2020]. <https://www.independent.co.uk/news/health/coronavirus-mental-health-royal-college-psychiatrists-adrian-james-b1253895.html>
- BBC. (2020ch). *Covid: Laptop allocation for deprived pupils cut at some schools*. British Broadcasting Corporation (BBC), [Published October 24 2020ch], [Cited October 25 2020]. <https://www.bbc.co.uk/news/education-54675620>
- BBC. (2020ci). *Coronavirus: 14-day quarantine for Covid contacts could be reduced*. British Broadcasting Corporation (BBC), [Published October 25 2020ci], [Cited October 25 2020]. <https://www.bbc.co.uk/news/uk-54678809>
- BBC. (2020cj). *Covid: 'Staggered return' for students after Christmas break*. British Broadcasting Corporation (BBC), [Published October 25 2020cj], [Cited October 25 2020]. <https://www.bbc.co.uk/news/uk-scotland-54675799>
- Jeffreys, Branwen. (2020b). *More children in England missing school over Covid-19*. British Broadcasting Corporation (BBC), [Published October 27 2020b], [Cited October 27 2020]. <https://www.bbc.co.uk/news/education-54695618>
- Venkataramakrishnan, Siddarth. (2020c). *Growing numbers disconnected from Covid-19 news, suggests new report*. Financial Times (London), [Published October 27 2020c], [Cited October 28 2020]. <https://www.ft.com/content/1b8ab329-3a90-4c75-980d-2155a187edea>
- Pantucci, Raffaello. (2020). *How the pandemic is making extremism worse*. Prospect Magazine, [Published October 28 2020], [Cited October 29 2020]. <https://www.prospectmagazine.co.uk/politics/how-the-pandemic-is-making-extremism-worse-covid-19>
- ECONOMIST. (2020q). *How hotels are trying to attract remote workers*. Economist, [Published October 29 2020q], [Cited November 8 2020]. <https://www.economist.com/business/2020/10/29/how-hotels-are-trying-to-attract-remote-workers>
- Thorp, Liam. (2020). *Liverpool is tired, angry and ready for a fight with Boris Johnson*. Guardian (UK), [Published October 29 2020], [Cited October 31 2020]. <https://www.theguardian.com/commentisfree/2020/oct/29/liverpool-boris-johnson-tories-levelling-up-coronavirus>
- Calkin, Sarah. (2020). *Frustrated public health directors slam NHS Test & Trace*. Local Government Chronicle, [Published October 30 2020], [Cited October 31 2020]. <https://www.lgcplus.com/politics/coronavirus/frustrated-public-health-directors-slam-nhs-test-trace-30-10-2020/>
- Quinn, Ben, and Libby Brooks. (2020). *Children in poorer areas of England missing more schooling – study* Guardian (UK), [Published October 30 2020], [Cited October 30 2020]. <https://www.theguardian.com/education/2020/oct/30/children-in-poorer-areas-of-england-missing-more-schooling-study>
- Weale, Sally. (2020b). *One in six childcare providers in England may close by Christmas*. Guardian (UK), [Published October 30 2020b], [Cited October 30 2020]. <https://www.theguardian.com/education/2020/oct/30/one-in-six-childcare-providers-in-england-may-close-by-christmas>
- ECONOMIST. (2020r). *Data and governance: The sad tale of Britain's Government Digital Service*. Economist, [Published October 31 2020r], [Cited October 30 2020]. <https://www.economist.com/britain/2020/10/31/the-sad-tale-of-britains-government-digital-service>

NEU. (2020b). *Close schools in national lockdown*. National Education Union (UK), [Published October 31 2020b], [Cited November 2 2020]. <https://neu.org.uk/press-releases/close-schools-national-lockdown>

Turnidge, Sarah. (2020). *Second Lockdown: Critics Slam Government's 'Staggering Incompetence'*. Huffington Post, [Published October 31 2020], [Cited November 3 2020]. https://www.huffingtonpost.co.uk/entry/second-lockdown-critics-slam-governments-incompetence-coronavirus_uk_5f9d8ceac5b60eefc8532688

10.12 November 2020 - Surges, policy and testing failures

BBC. (2020ck). *Coronavirus: Transport for London secures emergency £1.8bn bailout*. British Broadcasting Corporation (BBC), [Published November 1 2020ck], [Cited November 1 2020]. <https://www.bbc.co.uk/news/uk-england-london-54768723>

Mellor, Joe. (2020b). *Venture capitalist and head of vaccine task force married to Tory minister accused of sharing plans with private firms*. The London Economic, [Published November 1 2020b], [Cited November 2 2020]. <https://www.thelondoneconomic.com/news/venture-capitalist-and-head-of-vaccine-task-force-married-to-tory-minister-accused-of-sharing-plans-with-private-firms/01/11/>

SKY. (2020j). *Coronavirus: NHS COVID app failed to record potential exposures due to error*. Sky.com, [Published November 1 2020j], [Cited November 2 2020]. <https://news.sky.com/story/coronavirus-nhs-covid-app-failed-to-record-potential-exposures-due-to-error-12120910>

BBC. (2020cl). *Coronavirus lockdown: PM warns UK faces 'medical disaster' without action*. British Broadcasting Corporation (BBC), [Published November 2 2020cl], [Cited November 3 2020]. <https://www.bbc.co.uk/news/uk-54783076>

Burns, Judith. (2020g). *Coronavirus: Poorest pupils can enrol for catch-up tuition*. British Broadcasting Corporation (BBC), [Published November 2 2020g], [Cited November 2 2020]. <https://www.bbc.co.uk/news/education-54753088>

Gammie, Joe. (2020). *Covid 4,000 deaths a day scenario 'needs checking', urge scientists*. Press Association (UK), [Published November 2 2020], [Cited November 2 2020]. <https://uk.yahoo.com/news/covid-4-000-deaths-day-130225779.html>

Johnson, Beckie. (2020). *Coronavirus: 'Confusion' over different lockdown approaches in England and Wales*. Sky.com, [Published November 2 2020], [Cited November 3 2020]. <https://news.sky.com/story/coronavirus-confusion-over-different-lockdown-approaches-in-england-and-wales-12121907>

Thomas, Daniel, Jim Pickard, and Alice Hancock. (2020). *Business worried about 'bunker' mentality in 10 Downing Street*. Financial Times (London), [Published November 2 2020], [Cited November 4 2020]. <https://www.ft.com/content/ae8d8986-7265-4f2b-b121-5f93124f824c>

BBC. (2020cm). *Covid: Parents fined for children breaking lockdown rules*. British Broadcasting Corporation (BBC), [Published November 3 2020cm], [Cited November 3 2020]. <https://www.bbc.co.uk/news/uk-wales-54791146>

Butler, Sarah. (2020d). *Takeaway beer back on pub menus in England after lockdown U-turn*. Guardian (UK), [Published November 3 2020d], [Cited November 3 2020]. <https://www.theguardian.com/business/2020/nov/03/takeaway-beer-back-on-pub-menus-in-england-after-covid-lockdown-u-turn>

Dempsey, Harry, and Alice Hancock. (2020). *Pandemic sets off a scramble to snap up outdoor heaters*. Financial Times (London), [Published November 4 2020], [Cited November 4 2020]. <https://www.ft.com/content/a5cd89e3-91d1-40e4-9455-68c3d45012dc>

Gross, Anna, and Ian Bott. (2020b). *UK spends £1bn on Johnson's rapid testing 'moonshot'*. Financial Times (London), [Published November 4 2020b], [Cited November 4 2020]. <https://www.ft.com/content/ff84d393-7c83-447b-810f-3f818b28d82c>

BBC. (2020cn). *Sunak to extend furlough scheme to end of March*. British Broadcasting Corporation (BBC), [Published November 5 2020cn], [Cited November 5 2020]. <https://www.bbc.co.uk/news/business-54824120>

- BBC. (2020co). *Covid: Johnson says Covid statistics 'irrefutable' amid new row*. British Broadcasting Corporation (BBC), [Published November 6 2020co], [Cited November 6 2020]. <https://www.bbc.co.uk/news/uk-politics-54839359>
- BBC. (2020cp). *Covid: Queues as Liverpool's city-wide coronavirus testing begins*. British Broadcasting Corporation (BBC), [Published November 6 2020cp], [Cited November 6 2020]. <https://www.bbc.co.uk/news/uk-england-merseyside-54828634>
- Cellan-Jones, Rory. (2020f). *NHS England's IT plan expensive and risky, say MPs*. British Broadcasting Corporation (BBC), [Published November 6 2020f], [Cited November 6 2020]. <https://www.bbc.co.uk/news/technology-54833287>
- Halliday, Josh, and Sarah Boseley. (2020). *Covid: Liverpool mass testing trial 'could do more harm than good'*. Guardian (UK), [Published November 6 2020], [Cited November 6 2020]. <https://www.theguardian.com/uk-news/2020/nov/06/operation-moonshot-covid-mass-testing-trial-begins-liverpool>
- Neville, Sarah. (2020b). *Health crisis in England intensifies under Covid's shadow*. Financial Times (London), [Published November 6 2020b], [Cited November 6 2020]. <https://www.ft.com/content/e7d696fd-a0ae-4176-96a0-05b661329d05>
- Thomas, Daniel, and Stephen Morris. (2020a). *City of London suffers crushing blow from second lockdown*. Financial Times (London), [Published November 6 2020a], [Cited November 6 2020]. <https://www.ft.com/content/43a35b24-2918-451f-a9ca-90d676342981>
- Doward, Jamie. (2020b). *Good neighbours? No, UK's community spirit fell in summer Covid lockdown*. Guardian (UK), [Published November 7 2020b], [Cited November 8 2020]. <https://www.theguardian.com/world/2020/nov/07/good-neighbours-no-uks-community-spirit-fell-in-summer-covid-lockdown>
- ECONOMIST. (2020s). *Power of inequality: A minority of people with covid-19 account for the bulk of transmission*. Economist, [Published November 7 2020s], [Cited November 8 2020]. <https://www.economist.com/graphic-detail/2020/11/07/a-minority-of-people-with-covid-19-account-for-the-bulk-of-transmission>
- Nelson, Nigel. (2020b). *Drivers warned car insurance may be invalid for non-essential journeys in lockdown*. Daily Mirror (London), [Published November 7 2020b], [Cited November 8 2020]. <https://www.mirror.co.uk/news/politics/drivers-warned-insurance-invalid-non-22974841>
- Flood, Chris. (2020). *Charity sector faces £10bn funding shortfall and 60,000 job losses*. Financial Times (London), [Published November 8 2020], [Cited November 8 2020]. <https://www.ft.com/content/ea40845e-d0cc-4163-929b-4eb6520a0319>
- Strauss, Delphine. (2020b). *Millions of self-employed left out of latest UK support scheme*. Financial Times (London), [Published November 8 2020b], [Cited November 8 2020]. <https://www.ft.com/content/aa5b8d62-1f16-4ee4-bbbd-aa35b85fa5de>
- Gallagher, James. (2020d). *Covid vaccine: First 'milestone' vaccine offers 90% protection*. British Broadcasting Corporation (BBC), [Published November 9 2020d], [Cited November 9 2020]. <https://www.bbc.co.uk/news/health-54873105>
- Staton, Bethan. (2020b). *School meals row points to need for UK welfare reform, say charities*. Financial Times (London), [Published November 9 2020b], [Cited November 9 2020]. <https://www.ft.com/content/98b716ba-18e3-47b6-989e-26d6d1e118a0>
- BBC. (2020cq). *UK unemployment rate continues to surge*. British Broadcasting Corporation (BBC), [Published November 10 2020cq], [Cited November 10 2020]. <https://www.bbc.co.uk/news/business-54884592>
- Coman, Julian. (2020). *Lockdown is breeding resentment. The right can see that – does the left?* Guardian (UK), [Published November 10 2020], [Cited November 10 2020]. <https://www.theguardian.com/commentisfree/2020/nov/10/populist-divisions-covid-nigel-farage-second-wave>
- Davies, Nicola. (2020b). *NHS test and trace: Dido Harding says scheme failed to predict demand*. Guardian (UK), [Published November 10 2020b], [Cited November 10 2020].

<https://www.theguardian.com/world/2020/nov/10/nhs-test-and-trace-dido-harding-says-scheme-failed-to-predict-demand>

Elliott, Larry. (2020c). *UK redundancies hit record before second Covid lockdown*. Guardian (UK), [Published November 10 2020c], [Cited November 10 2020].
<https://www.theguardian.com/business/2020/nov/10/uk-redundancies-second-covid-lockdown>

Sodha, Sonia. (2020). *Why Nigel Farage's anti-Covid-lockdown crusade is a cause for grave concern*. Guardian (UK), [Published November 10 2020], [Cited November 11 2020].
<https://www.theguardian.com/commentisfree/2020/nov/10/covid-lockdown-nigel-farage-brexite-national-panic>

Elliott, Larry. (2020d). *The Covid-19 blunders drive home a harsh truth: the state has failed us*. Guardian (UK), [Published November 11 2020d], [Cited November 12 2020].
<https://www.theguardian.com/commentisfree/2020/nov/11/the-covid-19-blunders-drive-home-a-harsh-truth-we-live-in-a-failed-state>

Halliday, Josh. (2020c). *Austerity left north of England more vulnerable to Covid, report says*. Guardian (UK), [Published November 11 2020c], [Cited November 11 2020]. <https://www.theguardian.com/uk-news/2020/nov/11/austerity-left-north-of-england-more-vulnerable-to-covid-report-says>

Hunter, David J. (2020). *Trying to "Protect the NHS" in the United Kingdom*. New England Journal of Medicine, [Published November 11 2020], [Cited November 15 2020].
<https://www.nejm.org/doi/full/10.1056/NEJMp2032508>

Richardson, Hannah. (2020). *Covid-19: Universities to oversee student exodus for Christmas*. British Broadcasting Corporation (BBC), [Published November 11 2020], [Cited November 11 2020].
<https://www.bbc.co.uk/news/education-54887526>

Weale, Sally. (2020c). *England: 'shocking' decline in primary pupils' attainment after lockdown*. Guardian (UK), [Published November 11 2020c], [Cited November 13 2020].
<https://www.theguardian.com/education/2020/nov/11/england-shocking-decline-in-primary-pupils-attainment-after-lockdown>

BBC. (2020cr). *Black and Asian people at greater risk from Covid, study finds*. British Broadcasting Corporation (BBC), [Published November 12 2020cr], [Cited November 12 2020].
<https://www.bbc.co.uk/news/health-54907473>

Dudman, Jane. (2020). *'A devastating loss of funds': UK charities count the cost of Covid*. Guardian (UK), [Published November 12 2020], [Cited November 14 2020].
<https://www.theguardian.com/society/2020/nov/12/devastating-loss-funds-uk-charities-count-cost-covid>

Kemp, Phil. (2020). *Coronavirus: Safety officials had 'political' pressure to approve PPE*. British Broadcasting Corporation (BBC), [Published November 12 2020], [Cited November 12 2020].
<https://www.bbc.co.uk/news/uk-54897737>

Triggle, Nick. (2020e). *Coronavirus: Year-long waits for hospital care in England worst since 2008*. British Broadcasting Corporation (BBC), [Published November 12 2020e], [Cited November 13 2020].
<https://www.bbc.co.uk/news/health-54886286>

Booth, Robert. (2020b). *Three-quarters of England's care workers earn below 'real' living wage*. Guardian (UK), [Published November 13 2020b], [Cited November 13 2020].
<https://www.theguardian.com/society/2020/nov/13/three-quarters-of-englands-care-workers-earn-below-real-living-wage>

IS. (2020a). *COVID-19 and Health Inequality*. Independent Scientific Advisory Group for Emergencies (SAGE), [Published November 13 2020a], [Cited November 15 2020].
<https://www.independentsage.org/covid-19-and-health-inequality/>

Sharman, Laura. (2020). *People with learning disabilities six times more likely to die from COVID-19*. Localgov.com, [Published November 13 2020], [Cited November 14 2020].
<https://www.localgov.co.uk/People-with-learning-disabilities-six-times-more-likely-to-die-from-COVID-19/51407>

- LGA. (2020). *LGA: More than a million young people in England could be missing full-time education*. Local Government Association (UK), [Published November 16 2020], [Cited November 16 2020]. <https://www.local.gov.uk/lga-more-million-young-people-england-could-be-missing-full-time-education>
- Weale, Sally. (2020d). *Union says teachers in England being told to pause Covid app in school*. Guardian (UK), [Published November 16 2020d], [Cited November 16 2020]. <https://www.theguardian.com/education/2020/nov/16/union-says-teachers-in-england-being-told-to-pause-covid-app-in-school>
- Cocco, Federica. (2020). *The kids aren't alright: How Generation Covid is losing out*. Financial Times (London), [Published November 17 2020], [Cited November 19 2020]. <https://www.ft.com/content/0dec0291-2f72-4ce9-bd9f-ae2356bd869e>
- BBC. (2020cs). *London taxis stored in fields as passenger demand 'evaporates'*. British Broadcasting Corporation (BBC), [Published November 18 2020cs], [Cited November 19 2020]. <https://www.bbc.co.uk/news/uk-england-london-54974425>
- NAO. (2020b). *Investigation into government procurement during the COVID-19 pandemic*. National Audit Office (UK), [Published November 18 2020b], [Cited November 18 2020]. <https://www.nao.org.uk/report/government-procurement-during-the-covid-19-pandemic/>
- Wallis, William. (2020b). *The gig economy: how the Covid crisis has hit UK minorities hardest*. Financial Times (London), [Published November 18 2020b], [Cited November 19 2020]. <https://www.ft.com/content/01143e91-bf35-4480-b90f-cab139765e18>
- Cook, Rose, and Damian Grimshaw. (2020). *In the absence of other supportive measures, the UK's furlough scheme will reinforce gender inequalities*. London School of Economics & Political Science, [Published November 19 2020], [Cited November 20 2020]. <https://blogs.lse.ac.uk/politicsandpolicy/furlough-scheme-gender-inequalities/>
- Marris, Sharon. (2020). *COVID-19: One in seven UK companies fear they are at risk of collapse, ONS survey finds*. Sky.com, [Published November 19 2020], [Cited November 19 2020]. <https://news.sky.com/story/covid-19-one-in-seven-uk-companies-at-risk-of-collapse-ons-survey-finds-12136139>
- Toynbee, Polly. (2020). *Operation Moonshot ignored screening experts. No wonder it's failing*. Guardian (UK), [Published November 19 2020], [Cited November 20 2020]. <https://www.theguardian.com/commentisfree/2020/nov/19/operation-moonshot-england-screening-covid-testing-liverpool>
- BBC. (2020ct). *Covid-19: Drinkers in tier two 'could order Scotch egg' as substantial meal*. British Broadcasting Corporation (BBC), [Published November 30 2020ct], [Cited November 30 2020]. <https://www.bbc.co.uk/news/uk-55129828>
- BBC. (2020cu). *Covid has 'devastating' impact on gender equality*. British Broadcasting Corporation (BBC), [Published November 20 2020cu], [Cited November 21 2020]. <https://www.bbc.co.uk/news/business-55002687>
- BBC. (2020cv). *Sunak faces backlash over public sector pay freeze*. British Broadcasting Corporation (BBC), [Published November 20 2020cv], [Cited November 20 2020]. <https://www.bbc.co.uk/news/business-55011477>
- Triggle, Nick, Rachel Schraer, and Phil Kemp. (2020). *Coronavirus: Inside test-and-trace - how the 'world beater' went wrong*. British Broadcasting Corporation (BBC), [Published November 20 2020], [Cited November 20 2020]. <https://www.bbc.co.uk/news/health-55008133>
- Vize, Richard. (2020). *Controversial from creation to disbanding, via e-cigarettes and alcohol: an obituary of Public Health England*. British Medical Journal, [Published November 20 2020], [Cited November 20 2020]. <https://www.bmj.com/content/371/bmj.m4476.full>
- ECONOMIST. (2020t). *Scouse lessons: Liverpool's mass-testing shows promise, but must reach more people*. Economist, [Published November 21 2020t], [Cited November 20 2020]. <https://www.economist.com/britain/2020/11/21/liverpools-mass-testing-shows-promise-but-must-reach-more-people>

- Gross, Anna, and Peter Foster. (2020). *Scepticism at rapid 'Direct-Lamp' test being rolled out across NHS*. Financial Times (London), [Published November 22 2020], [Cited November 22 2020]. <https://www.ft.com/content/91997701-f2a0-47dc-a1f5-b0768b0edb8c>
- Coughlan, Sean. (2020r). *Two Covid tests for students in England before quick Christmas exit*. British Broadcasting Corporation (BBC), [Published November 23 2020r], [Cited November 24 2020]. <https://www.bbc.co.uk/news/education-55047597>
- Egan, Kelly. (2020). *COVID-19 and crowded stores — are we paying a price for holiday shopping?* Ottawa Citizen, [Published November 23 2020], [Cited November 25 2020]. <https://ottawacitizen.com/news/local-news/covid-and-crowded-stores-are-we-paying-price-for-holiday-shopping>
- Eley, Jonathan. (2020). *Retail crisis is the mother of urban centre reinvention*. Financial Times (London), [Published November 23 2020], [Cited November 26 2020]. <https://www.ft.com/content/c27806a1-0db6-448b-b170-5933e6b23c88>
- Manthorpe, Roland. (2020b). *COVID-19: How England's lockdown leak created surge of social activity that may have spread coronavirus*. Sky.com, [Published November 23 2020b], [Cited November 25 2020]. <https://news.sky.com/story/covid-19-how-englands-lockdown-leak-created-surge-of-social-activity-that-may-have-spread-the-virus-12137501>
- Coughlan, Sean. (2020s). *'Collapse' in secondary school attendance warning*. British Broadcasting Corporation (BBC), [Published November 24 2020s], [Cited November 24 2020]. <https://www.bbc.co.uk/news/education-55057125>
- Richardson, Hannah. (2020m). *Covid fears prompt 38% rise in parents home educating*. British Broadcasting Corporation (BBC), [Published November 24 2020m], [Cited November 24 2020]. <https://www.bbc.co.uk/news/education-55004924>
- COMMONS. (2020g). *Government "lost a crucial month" in "underprepared, slow" ventilators response*. House of Commons, Public Accounts Select Committee, [Published November 25 2020g], [Cited December 16 2020]. <https://committees.parliament.uk/committee/127/public-accounts-committee/news/132853/government-lost-a-crucial-month-in-underprepared-slow-ventilators-response/>
- Halliday, Josh. (2020d). *Test and trace fails to contact 110,000 in English Covid hot spots*. Guardian (UK), [Published November 25 2020d], [Cited November 25 2020]. <https://www.theguardian.com/world/2020/nov/25/test-and-trace-fails-to-contact-110000-in-english-covid-hot-spots>
- Staton, Bethan. (2020c). *'Locked down and locked in': the pandemic plight of UK university students*. Financial Times (London), [Published November 25 2020c], [Cited November 28 2020]. <https://www.ft.com/content/1bbf4bdc-c80b-4220-ba23-34d1cbce813d>
- UN. (2020). *Whose time to care: Unpaid care and domestic work during COVID-19*. United Nations Women, [Published November 25 2020], [Cited November 26 2020]. <https://data.unwomen.org/publications/whose-time-care-unpaid-care-and-domestic-work-during-covid-19>
- ECONOMIST. (2020u). *Playing on: Covid-19 and the business of crowds*. Economist, [Published November 26 2020u], [Cited December 2 2020]. <https://www.economist.com/business/2020/11/26/covid-19-and-the-business-of-crowds>
- Giles, Chris. (2020b). *Gruesome UK forecasts lay bare cost of coronavirus crisis*. Financial Times (London), [Published November 26 2020b], [Cited November 26 2020]. <https://www.ft.com/content/2a8dd2c0-dc6f-4446-b94e-95fd5c216f64>
- Lungumbu, Sandrine, and Amelia Butterly. (2020). *Coronavirus and gender: More chores for women set back gains in equality*. British Broadcasting Corporation (BBC), [Published November 26 2020], [Cited November 26 2020]. <https://www.bbc.co.uk/news/world-55016842>
- Triggle, Nick. (2020f). *Covid: Tiers and Christmas - a recipe for disaster?* British Broadcasting Corporation (BBC), [Published November 26 2020f], [Cited November 26 2020]. <https://www.bbc.co.uk/news/health-55076542>
- Woodcock, Andrew. (2020). *New Covid tier system branded 'authoritarian' by influential Tory as backbench revolt looms*. Independent (London), [Published November 26 2020], [Cited November 27 2020].

2020]. <https://www.independent.co.uk/news/uk/politics/boris-johnson-tiers-revolt-steve-baker-b1762284.html>

BBC. (2020cw). *Newspaper headlines: 'Tiers of rage and disbelief' as 'north sees red'*. British Broadcasting Corporation (BBC), [Published November 27 2020cw], [Cited November 27 2020]. <https://www.bbc.co.uk/news/blogs-the-papers-55096416>

Shukman, David. (2020b). *Covid Christmas: 'Avoid board games and sleepovers'*. British Broadcasting Corporation (BBC), [Published November 27 2020b], [Cited November 27 2020]. <https://www.bbc.co.uk/news/health-55107473>

BBC. (2020cx). *Travelling at Christmas: What you need to know*. British Broadcasting Corporation (BBC), [Published November 28 2020cx], [Cited November 28 2020]. <https://www.bbc.co.uk/news/uk-55055297>

Reilly, Jonathan. (2020). *PUB PROBLEMS Tier 2 rules: All the Covid law loopholes which mean you can order a pint WITHOUT a meal*. The Sun (UK), [Published November 30 2020], [Cited December 1 2020]. <https://www.thesun.co.uk/news/politics/13340134/tier-rules-loopholes-pints/>

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Buchan, James, Jane Ball, Nihar Shembavnekar, and Anita Charlesworth. (2020). *Building the NHS nursing workforce in England: Workforce pressure points*. The Health Foundation, [Published December 2020], [Cited December 14 2020]. <https://www.health.org.uk/publications/reports/building-the-nhs-nursing-workforce-in-england>

Cellan-Jones, Rory. (2020g). *Coronavirus: NHS Covid-19 app to gain self-isolation payments*. British Broadcasting Corporation (BBC), [Published December 1 2020g], [Cited December 7 2020]. <https://www.bbc.co.uk/news/technology-55133926>

COMMONS. (2020h). "A year after the oven ready deal, we have more of a cold turkey"- PAC Chair. House of Commons, Public Accounts Select Committee, [Published December 2 2020h], [Cited December 16 2020]. <https://committees.parliament.uk/committee/127/public-accounts-committee/news/136829/a-year-after-the-oven-ready-deal-we-have-more-of-a-cold-turkey-pac-chair/>

NAO. (2020c). *Investigation into the free school meals voucher scheme*. National Audit Office (UK), [Published December 2 2020c], [Cited December 11 2020]. <https://www.nao.org.uk/report/investigation-into-the-free-school-meals-voucher-scheme/>

Neville, Sarah, Anna Gross, and Helen Warrell. (2020). *How the UK will unroll its 'biggest vaccine programme in history'*. Financial Times (London), [Published December 2 2020], [Cited December 4 2020]. <https://www.ft.com/content/3096fd46-758a-48bd-819d-2919b0a91c8f>

Sample, Ian. (2020c). *British exceptionalism undermined pandemic preparedness, MPs told*. Guardian (UK), [Published December 2 2020c], [Cited December 4 2020]. <https://www.theguardian.com/politics/2020/dec/02/british-exceptionalism-undermined-pandemic-preparedness-mps-told>

ECONOMIST. (2020v). *Covid-19 and employment: The fates of Arcadia and Debenhams point to retail's huge problem*. Economist, [Published December 3 2020v], [Cited December 4 2020]. <https://www.economist.com/britain/2020/12/03/the-fates-of-arcadia-and-debenhams-point-to-retails-huge-problem>

Maddison, Francesca, and Gemma Schwendel. (2020). *The financial impact of COVID-19 on disabled people and their carers*. Joseph Rowntree Foundation, [Published December 3 2020], [Cited December 9 2020]. <https://www.jrf.org.uk/report/financial-impact-covid-19-disabled-people-and-their-carers>

Murphy, Simon. (2020b). *'High-value' business travellers to be exempt from quarantine in England*. Guardian (UK), [Published December 3 2020b], [Cited December 7 2020]. <https://www.theguardian.com/world/2020/dec/03/high-value-business-travellers-to-be-exempt-from-quarantine-in-england>

BBC. (2020cy). *Coronavirus: UK got vaccine first because it's 'a better country', says Gavin Williamson*. British Broadcasting Corporation (BBC), [Published December 4 2020cy], [Cited December 22 2020]. <https://www.bbc.co.uk/news/uk-politics-55175162>

- Eley, Jonathan, and George Hammond. (2020). *Crisis in retail: the UK town centres struggling to survive*. Financial Times (London), [Published December 4 2020], [Cited December 7 2020]. <https://www.ft.com/content/77b797fc-2fcf-420b-947c-a1a72109c231>
- ONS. (2020u). *Coronavirus and the social impacts on Great Britain: 4 December 2020*. Office for National Statistics (UK), [Published December 4 2020u], [Cited December 10 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandthesocialimpactsongreatbritain/4december2020>
- Pickford, James. (2020b). *Theatres hit by lack of Covid insurance as London's West End reopens*. Financial Times (London), [Published December 4 2020b], [Cited December 4 2020]. <https://www.ft.com/content/abe9164d-fe99-4cf8-82af-6f2d0e473332>
- Connor, Laura, and Alan Selby. (2020). *Covid vaccine plans for care home in chaos after frail residents told to 'get on bus'*. Daily Mirror (London), [Published December 5 2020], [Cited December 6 2020]. <https://www.mirror.co.uk/news/politics/care-homes-fear-tories-break-23121630>
- ECONOMIST. (2020w). *An injection of urgency: Britain becomes the first country to license a fully tested covid-19 vaccine*. Economist, [Published December 5 2020w], [Cited December 4 2020]. <https://www.economist.com/science-and-technology/2020/12/05/britain-becomes-the-first-country-to-license-a-fully-tested-covid-19-vaccine>
- BBC. (2020cz). *Nottingham's Christmas market 'temporarily' closes after one day*. British Broadcasting Corporation (BBC), [Published December 6 2020cz], [Cited December 6 2020]. <https://www.bbc.co.uk/news/uk-england-nottinghamshire-55206779>
- Bounds, Andy, and Michael Pooler. (2020). *PPE glut leaves UK manufacturers fearful for their future*. Financial Times (London), [Published December 6 2020], [Cited December 8 2020]. <https://www.ft.com/content/59c96a88-222c-495f-b414-9b2b70d7f102>
- Giordano, Chiara. (2020). *Barman in tier 2 shares pictures of binned food as he begs drinkers to only buy pints if hungry*. The Sun (UK), [Published December 6 2020], [Cited December 7 2020]. <https://uk.news.yahoo.com/barman-tier-2-shares-pictures-211502780.html>
- Kitching, Chris. (2020). *'Chaos' as hundreds flout Covid-19 rules outside Harrods as police arrest four*. Daily Mirror (London), [Published December 6 2020], [Cited December 6 2020]. <https://www.mirror.co.uk/news/uk-news/chaos-hundreds-flout-covid-19-23122667>
- SKY. (2020k). *COVID-19: Majority of British public do not trust government to manage pandemic - survey*. Sky.com, [Published December 6 2020k], [Cited December 6 2020]. <https://news.sky.com/story/covid-19-majority-of-british-public-do-not-trust-government-to-manage-pandemic-survey-12152793>
- Ahuja, Anjana. (2020c). *Rolling out vaccines to care homes first comes with risks attached*. Financial Times (London), [Published December 7 2020c], [Cited December 7 2020]. <https://www.ft.com/content/3bcd55a7-f9ca-4990-ab0c-30cfaf0da012>
- Davies, Jordan. (2020c). *Covid: 'Xbox and PlayStation home-learning' for some pupils*. British Broadcasting Corporation (BBC), [Published December 7 2020c], [Cited December 7 2020]. <https://www.bbc.co.uk/news/uk-wales-55190737>
- Halliday, Josh, Ashley Kirk, Helen Pidd, and Anna Leach. (2020). *Densely packed BAME communities in England bear brunt of Covid-19*. Guardian (UK), [Published December 7 2020], [Cited December 7 2020]. <https://www.theguardian.com/world/2020/dec/07/densely-packed-bame-communities-in-england-bear-brunt-of-covid-19>
- Johns, Marcus, Rosie Lockwood, Sarah Longlands, Amreen Qureshi, and Anna Round. (2020). *State of the North 2020/21: Power up, level up, rise up*. Institute for Public Policy Research North, [Published December 7 2020], [Cited December 6 2020]. <https://www.ft.com/content/77b797fc-2fcf-420b-947c-a1a72109c231>
- Jooshandeh, Jake. (2020). *Frontline Fatigue*. Royal Society for the encouragement of Arts, Manufactures and Commerce, [Published December 7 2020], [Cited December 18 2020]. <https://www.thersa.org/reports/frontline-fatigue-keyworkers-lockdown>

- Milne, Oliver, and Talia Shadwell. (2020). *Care home residents 'to get coronavirus vaccine by christmas' as plans smoothed over*. Daily Mirror (London), [Published December 7 2020], [Cited December 7 2020]. <https://www.mirror.co.uk/news/uk-news/care-home-residents-to-coronavirus-23125501>
- Pidd, Helen. (2020d). *'It's very frustrating': the Covid inequality dividing Blackburn*. Guardian (UK), [Published December 7 2020d], [Cited December 7 2020]. <https://www.theguardian.com/world/2020/dec/07/england-inequality-covid-infection-rates-blackburn>
- Fitzpatrick, Suzanne, Glen Bramley, Janice Blenkinsopp, Jenny Wood, Filip Sosenko, Mandy Littlewood, Sarah Johnsen, Beth Watts, Morag Treanor, and Jill McIntyre. (2020). *Destitution in the UK 2020*. Joseph Rowntree Foundation, [Published December 9 2020], [Cited December 9 2020]. <https://www.jrf.org.uk/report/destitution-uk-2020>
- Nunis, Vivienne. (2020). *'Price rises likely' due to UK shipping problems*. British Broadcasting Corporation (BBC), [Published December 9 2020], [Cited December 9 2020]. <https://www.bbc.co.uk/news/business-55237791>
- ONS. (2020v). *Coronavirus and higher education students: England, 20 November to 25 November 2020*. Office for National Statistics (UK), [Published December 9 2020v], [Cited December 10 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandhighereducationstudents/england20novemberto25november2020>
- ONS. (2020w). *The impact of the coronavirus so far: the industries that struggled or recovered* Office for National Statistics (UK), [Published December 9 2020w], [Cited December 10 2020]. <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/theimpactofthecoronavirussofartheindustriesthatstruggledorrecovered/2020-12-09>
- Strauss, Delphine. (2020c). *Pandemic leaves over-50s with uncertain job prospects*. Financial Times (London), [Published December 9 2020c], [Cited December 9 2020]. <https://www.ft.com/content/1713815d-567a-467c-91ac-f5fd73239ded>
- BBC. (2020da). *Covid-19: Canary Islands added to UK quarantine list*. British Broadcasting Corporation (BBC), [Published December 10 2020da], [Cited December 10 2020]. <https://www.bbc.co.uk/news/uk-55263038>
- Grover, Natalie. (2020a). *Covid has 'cut life expectancy in England and Wales by a year'*. Guardian (UK), [Published December 10 2020a], [Cited December 10 2020]. <https://www.theguardian.com/world/2020/dec/10/covid-life-expectancy-england-wales>
- Kelion, Leo. (2020c). *Coronavirus: NHS Covid-19 app starts offering self-isolate payments*. British Broadcasting Corporation (BBC), [Published December 10 2020c], [Cited December 10 2020]. <https://www.bbc.co.uk/news/technology-55259272>
- Nightingale, Ruby. (2020). *Digital Divide: Highlights from the latest session of the APPG on Social Mobility*. Sutton Trust, [Published December 10 2020], [Cited December 18 2020]. <https://www.suttontrust.com/news-opinion/all-news-opinion/digital-divide-highlights-from-the-latest-session-of-the-appg-on-social-mobility/>
- Steer, George, and Robert Wright. (2020). *Pandemic triggers 'perfect storm' for global shipping supply chains*. Financial Times (London), [Published December 10 2020], [Cited December 10 2020]. <https://www.ft.com/content/eb21056b-5773-422a-ab78-92e59cddc1b5>
- Taylor, Matthew. (2020). *Air pollution roars back in parts of UK, raising Covid fears*. Guardian (UK), [Published December 10 2020], [Cited December 10 2020]. <https://www.theguardian.com/environment/2020/dec/10/air-pollution-roars-back-in-parts-of-uk-raising-covid-fears>
- Topham, Gwyn, and John Henley. (2020). *UK holidaymakers barred from EU after 1 January under Covid rules*. Guardian (UK), [Published December 10 2020], [Cited December 10 2020]. <https://www.theguardian.com/politics/2020/dec/09/uk-holidaymakers-could-be-barred-from-visiting-eu-under-covid-safety-rules>
- Triggle, Nick. (2020g). *Covid: NHS long waits 100 times higher than before*. British Broadcasting Corporation (BBC), [Published December 10 2020g], [Cited December 10 2020]. <https://www.bbc.co.uk/news/health-55260338>

- Bruce-Lockhart, Chelsea. (2020). *Boris Johnson's 'red wall' facing blow from no-deal Brexit and Covid* Financial Times (London), [Published December 11 2020], [Cited December 11 2020]. <https://www.ft.com/content/f530e1b6-ea00-4f01-913e-245848449ad4>
- Coughlan, Sean. (2020t). *Covid testing of students finds few positive cases*. British Broadcasting Corporation (BBC), [Published December 11 2020t], [Cited December 11 2020]. <https://www.bbc.co.uk/news/education-55267010>
- Freedland, Jonathan. (2020). *The lost year: 12 months of coronavirus. The magnifying glass: how Covid revealed the truth about our world*. Guardian (UK), [Published December 11 2020], [Cited December 11 2020]. <https://www.theguardian.com/world/2020/dec/11/covid-upturned-planet-freedland>
- IS. (2020b). *Rethinking Christmas: A three point plan to keep families and communities safe*. Independent Scientific Advisory Group for Emergencies (SAGE), [Published December 11 2020b], [Cited December 14 2020]. <https://www.independentsage.org/rethinking-christmas-a-three-point-plan-to-keep-families-and-communities-safe/>
- Manthorpe, Roland. (2020c). *COVID-19: Liverpool mass testing pilot not reaching city's poorest people, leaked documents show*. Sky.com, [Published December 11 2020c], [Cited December 16 2020]. <https://news.sky.com/story/covid-19-liverpool-mass-testing-pilot-not-reaching-citys-poorest-people-leaked-documents-show-12158317>
- NAO. (2020d). *The government's approach to test and trace in England – interim report*. National Audit Office (UK), [Published December 11 2020d], [Cited December 11 2020]. <https://www.nao.org.uk/report/the-governments-approach-to-test-and-trace-in-england-interim-report/>
- Lowe, Yohannes. (2020). *Scotch eggs: 10-fold surge in demand for 'substantial meal'* Guardian (UK), [Published December 12 2020], [Cited December 12 2020]. <https://www.theguardian.com/uk-news/2020/dec/12/scotch-eggs-10-fold-surge-in-demand-for-substantial-meal>
- Anthony, Andrew. (2020). *Any port in a perfect storm: UK container trade is grinding to a halt* Guardian (UK), [Published December 13 2020], [Cited December 13 2020]. <https://www.theguardian.com/business/2020/dec/13/any-port-in-a-perfect-storm-uk-container-trade-is-grinding-to-a-halt>
- Arnold, Martin, David Keohane, and Silvia Sciorilli Borrelli. (2020). *Future of the City: Where did all the jobs go?* Financial Times (London), [Published December 13 2020], [Cited December 13 2020]. <https://www.ft.com/content/3eaac146-e140-490b-9c97-73e026b7dc13>
- BBC. (2020db). *Britons told not to stockpile food ahead of January*. British Broadcasting Corporation (BBC), [Published December 13 2020db], [Cited December 13 2020]. <https://www.bbc.co.uk/news/business-55293595>
- Cameron-Chileshe, Jasmine. (2020). *Johnson warned of third Covid wave by health experts* Financial Times (London), [Published December 13 2020], [Cited December 14 2020]. <https://www.ft.com/content/6bb88587-902f-4aba-8147-2277849fc26d>
- Corfe, Scott, and Jake Shepherd. (2020). *Obesity and coronavirus – where next for policy?* Social Market Foundation, [Published December 13 2020], [Cited December 18 2020]. <https://www.smf.co.uk/publications/obesity-and-coronavirus/>
- Tahir, Tariq, and Dan Keane. (2020). *FEAR WE GO! Panic-buyers hit the supermarkets to stockpile food amid No Deal Brexit fears*. The Sun (UK), [Published December 13 2020], [Cited December 13 2020]. <https://www.thesun.co.uk/news/13461400/panic-buyers-supermarkets-stockpile-food-no-deal-brexif/>
- BBC. (2020dc). *Covid-19: London mayor calls for schools to close early*. British Broadcasting Corporation (BBC), [Published December 14 2020dc], [Cited December 14 2020]. <https://www.bbc.co.uk/news/uk-england-london-55299848>
- BBC. (2020dd). *Covid-19: NI health service faces 'nightmare' in New Year*. British Broadcasting Corporation (BBC), [Published December 14 2020dd], [Cited December 14 2020]. <https://www.bbc.co.uk/news/uk-northern-ireland-55301430>
- Calder, Simon. (2020). *Test-to-release' travel scheme collapses in chaos on day one*. Independent (London), [Published December 14 2020], [Cited December 15 2020]. <https://www.independent.co.uk/travel/news-and-advice/test-to-release-covid-quarantine-b1774111.html>

- Davies, Rob. (2020d). *UK pubs fear for future as £650m Covid losses forecast for December*. Guardian (UK), [Published December 14 2020d], [Cited December 14 2020].
<https://www.theguardian.com/business/2020/dec/14/uk-pubs-covid-december-sales>
- Halliday, Josh. (2020e). *England's Covid test and trace relying on inexperienced and poorly trained staff*. Guardian (UK), [Published December 14 2020e], [Cited December 14 2020].
<https://www.theguardian.com/society/2020/dec/14/england-covid-test-and-trace-relying-on-inexperienced-and-poorly-trained-staff>
- Hyams, Charlie. (2020). *Travel chaos as holidaymakers face delays over Covid test results*. Daily Telegraph (London), [Published December 14 2020], [Cited December 15 2020].
<https://www.telegraph.co.uk/news/2020/12/14/travel-chaos-government-fails-announce-approved-testing-firms/>
- Slawson, Nicola. (2020). *'Hellish': UK parents on school life in the shadow of Covid*. Guardian (UK), [Published December 14 2020], [Cited December 14 2020].
<https://www.theguardian.com/education/2020/dec/14/hellish-parents-england-school-covid>
- BBC. (2020de). *Coronavirus: Greenwich Council backs down on school closures*. British Broadcasting Corporation (BBC), [Published December 15 2020de], [Cited December 15 2020].
<https://www.bbc.co.uk/news/uk-england-london-55317971>
- BBC. (2020df). *Coronavirus: Redbridge Council suggests schools teach online*. British Broadcasting Corporation (BBC), [Published December 15 2020df], [Cited December 15 2020].
<https://www.bbc.co.uk/news/uk-england-london-55324869>
- BBC. (2020dg). *Covid: Chaotic start for travellers' Covid testing system*. British Broadcasting Corporation (BBC), [Published December 15 2020dg], [Cited December 15 2020].
<https://www.bbc.co.uk/news/business-55318310>
- BBC. (2020dh). *Covid: More talks planned over Christmas rules*. British Broadcasting Corporation (BBC), [Published December 15 2020dh], [Cited December 15 2020]. <https://www.bbc.co.uk/news/uk-55325621>
- BBC. (2020di). *Prioritise northern rail network over HS2, says report*. British Broadcasting Corporation (BBC), [Published December 15 2020di], [Cited December 15 2020].
<https://www.bbc.co.uk/news/business-55301997>
- Boseley, Sarah. (2020b). *Pre-existing inequality led to record UK Covid death rate, says health expert*. Guardian (UK), [Published December 15 2020b], [Cited December 15 2020].
<https://www.theguardian.com/world/2020/dec/15/pre-existing-inequality-led-to-record-uk-covid-deaths-sir-michael-marmot-public-health-chief>
- Elgot, Jessica, and Nicola Davis. (2020). *UK medical journals call for Christmas Covid rules to be reversed*. Guardian (UK), [Published December 15 2020], [Cited December 15 2020].
<https://www.theguardian.com/world/2020/dec/15/uk-medical-journals-call-for-christmas-covid-rules-to-be-reversed>
- Giles, Chris, and John Burn-Murdoch. (2020). *Jump in London Covid cases raises fears over Christmas gatherings*. Financial Times (London), [Published December 15 2020], [Cited December 15 2020].
<https://www.ft.com/content/f111e05c-0586-4650-936e-9d506b8479c4>
- Marmot, Michael, Jessica Allen, Peter Goldblatt, Eleanor Herd, and Morrison. Joana. (2020). *Build Back Fairer: The COVID-19 Marmot Review*. Institute of Health Equity, University College London, [Published December 15 2020], [Cited December 15 2020]. <http://www.instituteofhealthequity.org/resources-reports/build-back-fairer-the-covid-19-marmot-review>
- McLellan, Alastair, and Fiona Godlee. (2020). *Covid 19: Christmas relaxation will overwhelm services*. British Medical Journal, [Published December 15 2020], [Cited December 15 2020].
<https://www.bmj.com/content/371/bmj.m4847>
- Murphy, Simon. (2020c). *Dominic Cummings received £40,000 pay rise while at No 10*. Guardian (UK), [Published December 15 2020c], [Cited December 15 2020].
<https://www.theguardian.com/politics/2020/dec/15/dominic-cummings-received-40000-payrise-while-at-no-10>

- NIC. (2020). *Focus rail investment on linking key cities in North and Midlands to unlock economic benefits, says Commission*. National Infrastructure Commission (UK), [Published December 15 2020], [Cited December 15 2020]. <https://nic.org.uk/news/focus-rail-investment-on-linking-key-cities-in-north-and-midlands/>
- Pickard, Jim, and Philip Georgiadis. (2020). *England's new testing programme for travellers overwhelmed within hours*. Financial Times (London), [Published December 15 2020], [Cited December 15 2020]. <https://www.ft.com/content/8b6bf189-0aa3-4dff-a906-438c91c348d3>
- Quinn, Ben, and Helen Pidd. (2020). *Huge gaps in classroom time for pupils across England, figures show*. Guardian (UK), [Published December 15 2020], [Cited December 15 2020]. <https://www.theguardian.com/education/2020/dec/15/huge-gaps-in-classroom-time-for-pupils-across-england-figures-show>
- Richardson, Hannah. (2020n). *Coronavirus: School attendance plummeted after half-term in England*. British Broadcasting Corporation (BBC), [Published December 15 2020n], [Cited December 15 2020]. <https://www.bbc.co.uk/news/education-55318035>
- Strauss, Delphine. (2020d). *UK jobs could disappear as Covid puts automation on 'steroids'*. Financial Times (London), [Published December 15 2020d], [Cited December 15 2020]. <https://www.ft.com/content/d02342c9-1bdf-43a8-a242-df73493ef894>
- Thomas, Daniel. (2020d). *Hospitality worst-hit as unemployment rises again*. British Broadcasting Corporation (BBC), [Published December 15 2020d], [Cited December 15 2020]. <https://www.bbc.co.uk/news/business-55313752>
- Weale, Sally. (2020e). *Heads angry after two councils forced to back down over Covid school closures*. Guardian (UK), [Published December 15 2020e], [Cited December 16 2020]. <https://www.theguardian.com/uk-news/2020/dec/15/greenwich-backs-down-over-plans-to-close-schools-in-face-of-legal-action>
- Wise, Jacqui. (2020). *Covid-19: Lateral flow tests miss over half of cases, Liverpool pilot data show*. British Medical Journal, [Published December 15 2020], [Cited December 16 2020]. <https://www.bmj.com/content/371/bmj.m4848>
- AP. (2020). *Swedish PM says officials misjudged power of Covid resurgence*. Guardian (UK), [Published December 16 2020], [Cited December 17 2020]. <https://www.theguardian.com/world/2020/dec/15/swedish-pm-says-officials-misjudged-power-of-covid-resurgence>
- BBC. (2020dj). *Covid Christmas rules: Boris Johnson calls for shorter, smaller celebrations*. British Broadcasting Corporation (BBC), [Published December 16 2020dj], [Cited December 16 2020]. <https://www.bbc.co.uk/news/uk-55335236>
- BBC. (2020dk). *Housing: Formula for locating new homes revised after Tory backlash*. British Broadcasting Corporation (BBC), [Published December 16 2020dk], [Cited December 16 2020]. <https://www.bbc.co.uk/news/uk-politics-55322993>
- BBC. (2020dl). *Rail fare rise a 'kick in the teeth' for passengers*. British Broadcasting Corporation (BBC), [Published December 16 2020dl], [Cited December 16 2020]. <https://www.bbc.co.uk/news/business-55323345>
- Cole, Harry, Matt Dathan, and Jonathan Reilly. (2020). *COLD TURKEY: Boris Johnson urges Brits to cut back on Christmas plans as experts say we should eat turkey dinner OUTSIDE with gran*. The Sun (UK), [Published December 16 2020], [Cited December 17 2020]. <https://www.thesun.co.uk/news/13500387/boris-johnson-cut-back-christmas-plans/>
- COMMONS. (2020i). *Risk of UK taxpayer bailout on up to £26 billion of Covid Bounce Back Loans*. House of Commons, Public Accounts Select Committee, [Published December 16 2020i], [Cited December 16 2020]. <https://committees.parliament.uk/committee/127/public-accounts-committee/news/137935/risk-of-uk-taxpayer-bailout-on-up-to-26-billion-of-covid-bounce-back-loans/>
- Craig, Jon, and Alan McGuinness. (2020). *PM resisting calls to 'cancel Christmas' - but minister admits families meeting up will not be 'cost free'*. Sky.com, [Published December 16 2020], [Cited December 16 2020]. <https://www.msn.com/en-gb/news/coronavirus/pm-resisting-calls-to-cancel-christmas-but-minister-admits-families-meeting-up-will-not-be-cost-free/ar-BB1bXm1x?ocid=mailsignout&li=BB0PWjQ>

- Duncan, Pamela, Lydia McMullan, Garry Blight, Pablo Gutiérrez, and Frank Hulley-Jones. (2020). *Covid chaos: a timeline of the UK's handling of the coronavirus crisis*. Guardian (UK), [Published December 16 2020], [Cited December 16 2020]. <https://www.theguardian.com/world/ng-interactive/2020/dec/16/covid-chaos-a-timeline-of-the-uks-handling-of-the-coronavirus-crisis>
- ECONOMIST. (2020x). *Is a wave of supply-chain reshoring around the corner?* Economist, [Published December 16 2020x], [Cited December 21 2020]. <https://www.economist.com/finance-and-economics/2020/12/16/is-a-wave-of-supply-chain-reshoring-around-the-corner>
- Editorial. (2020a). *The Guardian view on Johnson and Covid rules: a habit of complacency*. Guardian (UK), [Published December 16 2020a], [Cited December 17 2020]. <https://www.theguardian.com/commentisfree/2020/dec/16/the-guardian-view-on-johnson-and-covid-rules-a-habit-of-complacency>
- Miller, Joe, and Clive Cookson. (2020). *FT People of the Year: BioNTech's Ugur Sahin and Ozlem Tureci*. Financial Times (London), [Published December 16 2020], [Cited December 21 2020]. <https://www.ft.com/content/6633221e-3b28-4a15-b02d-958854644c79>
- PA. (2020c). *Northern Ireland: patients treated in car parks as hospitals overflow*. Guardian (UK), [Published December 16 2020c], [Cited December 16 2020]. <https://www.theguardian.com/uk-news/2020/dec/16/northern-ireland-patients-treated-in-car-parks-as-hospitals-overflow>
- Syal, Rajeev. (2020c). *Coronavirus: tensions over handling of UK Covid vaccine rollout*. Guardian (UK), [Published December 16 2020c], [Cited December 16 2020]. <https://www.theguardian.com/politics/2020/dec/16/tensions-mount-over-handling-of-uk-covid-vaccine-rollout>
- Thomas, Daniel, Alice Hancock, Jonathan Eley, and Aleksandra Wisniewska. (2020). *Retail chiefs in UK earn among highest multiples of workers' wages*. Financial Conduct Authority (UK), [Published December 16 2020], [Cited December 16 2020]. <https://www.ft.com/content/dc2bd052-bbf5-4aae-9821-870bea7c0fc3>
- Bradley, Jane, Selam Gebrekidan, and Allison McCann. (2020). *Waste, Negligence and Cronyism: Inside Britain's Pandemic Spending*. New York Times, [Published December 17 2020], [Cited December 17 2020]. <https://www.nytimes.com/interactive/2020/12/17/world/europe/britain-covid-contracts.html>
- NEU. (2020c). *NEU writes to Gavin Williamson about mass testing plan*. National Education Union (UK), [Published December 17 2020c], [Cited December 17 2020]. <https://neu.org.uk/press-releases/neu-writes-gavin-williamson-about-mass-testing-plan>
- Thomas, Daniel, and Jim Pickard. (2020c). *Sunak to extend UK's emergency Covid business loan schemes*. Financial Times (London), [Published December 17 2020c], [Cited December 17 2020]. <https://www.ft.com/content/64ca4b7c-3cc8-4e25-9337-0fa32bf78f80>
- Tidman, Zoe. (2020). *Government considering delaying start of school term after Christmas*. Independent (London), [Published December 17 2020], [Cited December 17 2020]. <https://www.independent.co.uk/news/education/news/schools-january-delayed-start-christmas-b1775280.html>
- BBC. (2020dm). *Covid-19: 'Many deaths' without NI lockdown*. British Broadcasting Corporation (BBC), [Published December 18 2020dm], [Cited December 18 2020]. <https://www.bbc.co.uk/news/uk-northern-ireland-55360646>
- Harford, Tim. (2020d). *Things (I think) I was wrong about this year*. Financial Times (London), [Published December 18 2020d], [Cited December 21 2020]. <https://www.ft.com/content/31374377-c412-4797-a519-eb74d475047a>
- Hemming, Sarah. (2020). *How theatres tried to stage a recovery in 2020*. Financial Times (London), [Published December 18 2020], [Cited December 18 2020]. <https://www.ft.com/content/f25f4bf9-a2aa-4755-a65a-1bdd8695ff7b>
- Kelly, Jemima. (2020b). *'Following the science' is more complicated than we like to admit*. Financial Times (London), [Published December 18 2020b], [Cited December 18 2020]. <https://www.ft.com/content/6f9462d6-1e6c-46df-b81f-d7f661c3df9e>

- Lockwood, Tamsin. (2020). *County Durham life expectancy amongst lowest as gap between deprived areas grows*. Northern Echo (Newcastle), [Published December 18 2020], [Cited December 19 2020]. <https://www.thenorthernecho.co.uk/news/18953963.county-durham-life-expectancy-amongst-lowest-gap-deprived-areas-grows/>
- Mance, Henry. (2020). *What will we take from this year?* Financial Times (London), [Published December 18 2020], [Cited December 21 2020]. <https://www.ft.com/content/842d8edc-04a5-4b28-88fe-c74039c7dcf0>
- Milne, Richard. (2020). *Denmark's Covid response runs into trouble as infections spiral*. Financial Times (London), [Published December 18 2020], [Cited December 18 2020]. <https://www.ft.com/content/f99f19c3-6dec-4a0c-96ed-d40d6cbdaf2a>
- O'Murchu, Cynthia. (2020). *Vaccines for sale on dark web as criminals target pandemic profits*. Financial Times (London), [Published December 18 2020], [Cited December 18 2020]. <https://www.ft.com/content/8bfc674e-efe6-4ee0-b860-7fcb5716bed6>
- ONS. (2020x). *Changes in all-cause and COVID-19 mortality over time, England and Wales: deaths occurring between 28 December 2019 and 4 September 2020*. Office for National Statistics (UK), [Published December 18 2020x], [Cited December 18 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/changesinallcauseandcovid19mortalityvertimeenglandandwales/deathsoccurringbetween28december2019and4september2020>
- Richardson, Hannah. (2020o). *Head teachers 'broken' by England's late Covid test plan*. British Broadcasting Corporation (BBC), [Published December 18 2020o], [Cited December 18 2020]. <https://www.bbc.co.uk/news/education-55354564>
- Whitty, Chris. (2020). *Chief Medical Officer's annual report 2020: health trends and variation in England*. Department of Health and Social Care (UK), [Published December 18 2020], [Cited December 19 2020]. <https://www.gov.uk/government/publications/chief-medical-officers-annual-report-2020-health-trends-and-variation-in-england>
- BBC. (2020dn). *Newspaper headlines: 'Lockdown 3 fear' and Oxford jab 'before new year'*. British Broadcasting Corporation (BBC), [Published December 19 2020dn], [Cited December 19 2020]. <https://www.bbc.co.uk/news/blogs-the-papers-55372241>
- COMMONS. (2020j). *Concerns remain as the UK prepares for new arrangements from 1 January, warns Committee*. House of Commons, Committee on the Future Relationship with the European Union, [Published December 19 2020j], [Cited December 19 2020]. <https://committees.parliament.uk/committee/366/committee-on-the-future-relationship-with-the-european-union/news/138023/concerns-remain-as-the-uk-prepares-for-new-arrangements-from-1-january-warns-committee/>
- Evans, Judith. (2020). *UK farmers turn to robots to plug labour shortages*. Financial Times (London), [Published December 19 2020], [Cited December 21 2020]. <https://www.ft.com/content/1a079b7c-b641-4288-ab9b-56b3de2be433>
- McGee, Luke. (2020a). *Boris Johnson is facing two hellish weeks. Critics fear his weak leadership could seriously harm the UK*. CNN, [Published December 19 2020a], [Cited December 19 2020]. <https://edition.cnn.com/2020/12/19/uk/boris-johnson-covid-christmas-brexit-intl-gbr/index.html>
- Savage, Michael, Robin McKie, and Toby Helm. (2020). *Johnson U-turn leaves nation's plans for Christmas in tatters*. Guardian (UK), [Published December 19 2020], [Cited December 19 2020]. <https://www.theguardian.com/world/2020/dec/19/johnson-u-turn-leaves-nations-plans-for-christmas-in-tatters>
- SKY. (2020). *Ministers warned about 'overall state of readiness' for end of Brexit transition period*. Sky.com, [Published December 19 2020], [Cited December 19 2020]. <https://news.sky.com/story/ministers-warned-about-overall-state-of-readiness-for-end-of-brexit-transition-period-12166622>
- Townsend, Mark, Phillip Inman, and Jamie Doward. (2020). *London's shops and businesses in despair as new Covid curbs halt Christmas bonanza*. Guardian (UK), [Published December 19 2020], [Cited

December 19 2020]. <https://www.theguardian.com/world/2020/dec/19/londons-shops-and-businesses-in-despair-as-new-covid-curbs-halt-christmas-bonanza>

BBC. (2020do). *Covid: Ireland, Italy, Belgium and Netherlands ban flights from UK over variant*. British Broadcasting Corporation (BBC), [Published December 20 2020do], [Cited December 20 2020]. <https://www.bbc.co.uk/news/world-europe-55385768>

Eaton, George. (2020b). *Boris Johnson overpromised on Christmas – the mistake made throughout the pandemic*. New Statesman, [Published December 20 2020b], [Cited December 21 2020]. <https://www.newstatesman.com/politics/uk/2020/12/boris-johnson-overpromised-christmas-mistake-made-throughout-pandemic>

Editorial. (2020b). *Boris Johnson's government is badly behind the curve*. Financial Times (London), [Published December 20 2020b], [Cited December 21 2020]. <https://www.ft.com/content/9c9e5248-623a-4547-9a23-954a844d459e>

Heffer, Simon. (2020c). *Beware Boris, the rage of people reaching the end of their tether could end in your tears*. Daily Telegraph (London), [Published December 20 2020c], [Cited December 20 2020]. <https://www.telegraph.co.uk/opinion/2020/12/20/beware-boris-rage-people-reaching-end-tether-could-end-tears/>

Lindsay, Kali. (2020a). *'Thousands dash for eye tests' - Barnard Castle in spotlight again as Londoners flee city*. The Chronicle (Newcastle), [Published December 20 2020a], [Cited December 22 2020]. <https://www.chroniclelive.co.uk/news/north-east-news/thousands-dash-eye-tests-barnard-19492558>

Parker, George, and Jim Pickard. (2020). *Christmas debacle caps a bad year for Johnson on Covid-19*. Financial Times (London), [Published December 20 2020], [Cited December 21 2020]. <https://www.ft.com/content/e1c33147-c3ec-48f0-9ce1-1a3a3c308454>

Roach, April. (2020). *Queues at London train stations as crowds flee the capital before tough Tier 4 restrictions come into force*. Evening Standard (London), [Published December 20 2020], [Cited December 20 2020]. <https://www.standard.co.uk/news/uk/queues-london-train-stations-tier-4-covid-restrictions-b394242.html>

Syal, Rajeev. (2020d). *Johnson facing mounting anger from senior Tory MPs over new restrictions*. Guardian (UK), [Published December 20 2020d], [Cited December 20 2020]. <https://www.theguardian.com/world/2020/dec/20/england-new-covid-restrictions-likely-to-stay-for-months-until-vaccine-rollout>

Thomas, Daniel, and Stephen Morris. (2020b). *'A giant bonfire of taxpayers' money': fraud and the UK pandemic loan scheme*. Financial Times (London), [Published December 20 2020b], [Cited December 21 2020]. <https://www.ft.com/content/41d5fe0a-7b46-4dd7-96e3-710977dff81c>

Alderman, Liz. (2020). *Who Takes the Eurostar? Almost No One, as the Pandemic Fuels a Rail Crisis*. New York Times, [Published December 21 2020], [Cited December 21 2020]. <https://www.nytimes.com/2020/12/21/business/eurostar-pandemic-train-europe.html>

BBC. (2020dp). *Covid-19: UK isolation grows as more countries ban travel*. British Broadcasting Corporation (BBC), [Published December 21 2020dp], [Cited December 21 2020]. <https://www.bbc.co.uk/news/uk-55391289>

BBC. (2020dq). *Supermarkets try to calm food shortage fears amid border chaos*. British Broadcasting Corporation (BBC), [Published December 21 2020dq], [Cited December 21 2020]. <https://www.bbc.co.uk/news/business-55393076>

Georgiadis, Philip. (2020). *Airlines take fresh hit as travel bans spread*. Financial Times (London), [Published December 21 2020], [Cited December 21 2020]. <https://www.ft.com/content/c0301c00-fdae-42bb-8594-2c800831beb9>

Grover, Natalie. (2020b). *Delay school return in England by two weeks over Covid, union urges*. Guardian (UK), [Published December 21 2020b], [Cited December 21 2020]. <https://www.theguardian.com/education/2020/dec/21/delay-school-return-in-england-by-two-weeks-over-covid-union-urges>

- Hopkins, Nick. (2020). *'Captain of a rudderless ship': Tory media turn on Boris Johnson*. Guardian (UK), [Published December 21 2020], [Cited December 21 2020]. <https://www.theguardian.com/politics/2020/dec/21/captain-rudderless-ship-tory-media-turn-boris-johnson>
- McGee, Luke. (2020b). *Boris Johnson has led Britain into an abyss of overlapping crises at the worst possible time*. CNN, [Published December 21 2020b], [Cited December 21 2020]. <https://edition.cnn.com/2020/12/21/uk/boris-johnson-covid-analysis-intl-gbr/index.html>
- Nutt, Kathleen. (2020). *Police chief warns English cars will be stopped to enforce travel ban*. The National (Scotland), [Published December 21 2020], [Cited December 22 2020]. <https://www.thenational.scot/news/18959971.police-chief-warns-english-cars-will-stopped-enforce-travel-ban/>
- O'Brien, Neill. (2020b). *Sweden's Covid-19 failures have exposed the myths of the lockdown-sceptics*. New Statesman, [Published December 21 2020b], [Cited December 21 2020]. <https://www.newstatesman.com/world/europe/2020/12/sweden-s-covid-19-failures-have-exposed-myths-lockdown-sceptics>
- Sansome, Jessica. (2020). *Boris Johnson says we will 'have a very different world from Easter'*. Manchester Evening News, [Published December 21 2020], [Cited December 22 2020]. <https://www.manchestereveningnews.co.uk/news/uk-news/boris-johnson-says-have-very-19500761>
- BBC. (2020dr). *Covid-19: UK sees over 80,000 excess deaths during pandemic*. British Broadcasting Corporation (BBC), [Published December 22 2020dr], [Cited December 22 2020]. <https://www.bbc.co.uk/news/health-55411323>
- Campbell, Denis. (2020a). *NHS leaders raise concerns over pace of Covid vaccine rollout*. Guardian (UK), [Published December 22 2020a], [Cited December 23 2020]. <https://www.theguardian.com/world/2020/dec/22/nhs-leaders-raise-concerns-pace-covid-vaccine-rollout>
- Henley, John. (2020). *World's media ask how it went so wrong for 'Plague Island' Britain*. Guardian (UK), [Published December 22 2020], [Cited December 22 2020]. <https://www.theguardian.com/world/2020/dec/22/worlds-media-ask-how-it-went-so-wrong-for-plague-island-britain-covid>
- Mia, Sato. (2020). *Vaccine passports could further erode trust*. Technology Review, [Published December 22 2020], [Cited December 30 2020]. <https://www.technologyreview.com/2020/12/22/1015451/vaccine-passports-nita-farahany-trust/>
- Mills, Bobbie, and John Andrews. (2020). *Assessing Covid-19 cost pressures on England's schools*. Education Policy Institute, [Published December 22 2020], [Cited December 24 2020]. <https://epi.org.uk/publications-and-research/covid-19-cost-pressures-on-schools/>
- NUFFIELD. (2020). *"Perilously uncertain" future for UK health sector despite Brexit deal, expert analysis reveals*. Nuffield Trust, [Published December 22 2020], [Cited December 22 2020]. <https://www.nuffieldtrust.org.uk/news-item/perilously-uncertain-future-for-uk-health-sector-despite-brexit-deal-expert-analysis-reveals>
- ONS. (2020y). *Changes in all-cause and COVID-19 mortality over time, England and Wales: deaths occurring between 28 December 2019 and 4 September 2020*. Office for National Statistics (UK), [Published December 22 2020y], [Cited December 22 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/changesinallcauseandcovid19mortalityvertimeenglandandwales/deathsoccurringbetween28december2019and4september2020>
- SKY. (2020m). *COVID-19: More than half of local authorities expect childcare providers to close when coronavirus support ends*. Sky.com, [Published December 22 2020m], [Cited December 22 2020]. <https://news.sky.com/story/covid-19-more-than-half-of-local-authorities-expect-childcare-providers-to-close-when-coronavirus-support-ends-12169831>
- Webster, Laura. (2020). *Boris Johnson sparks anger by laughing about No-Deal Brexit at Covid conference*. The National (Scotland), [Published December 22 2020], [Cited December 22 2020]. <https://www.thenational.scot/news/18961525.boris-johnson-sparks-anger-laughing-no-deal-brexit-covid-conference/>

- Baker, Simon. (2020). *UK university accounts show signs of 'significant' Covid risks*. Times Higher Education, [Published December 23 2020], [Cited December 24 2020]. <https://www.timeshighereducation.com/news/uk-university-accounts-show-signs-significant-covid-risks>
- BBC. (2020ds). *Covid-19: Six million more people to enter tier 4 on Boxing Day*. British Broadcasting Corporation (BBC), [Published December 23 2020ds], [Cited December 23 2020]. <https://www.bbc.co.uk/news/uk-55428017>
- BBC. (2020dt). *Covid-19: Stranded hauliers face 'a few days' at the border*. British Broadcasting Corporation (BBC), [Published December 23 2020dt], [Cited December 23 2020]. <https://www.bbc.co.uk/news/uk-55420193>
- Halliday, Josh. (2020f). *Covid: More of England could move into tier 4 from Boxing Day, says minister*. Guardian (UK), [Published December 23 2020f], [Cited December 23 2020]. <https://www.theguardian.com/world/2020/dec/23/more-areas-of-england-could-move-into-tier-4-covid-restrictions>
- Murphy, Simon, and Josh Halliday. (2020). *English regions should go into Covid tier 4 now, scientists say*. Guardian (UK), [Published December 23 2020], [Cited December 24 2020]. <https://www.theguardian.com/world/2020/dec/23/english-regions-should-go-into-covid-tier-4-now-scientists-say>
- PA. (2020d). *NHS chiefs urge PM to extend Brexit transition by a month*. Guardian (UK), [Published December 23 2020d], [Cited December 23 2020]. <https://www.theguardian.com/society/2020/dec/23/nhs-chiefs-urge-pm-to-extend-brexit-transition-by-a-month>
- Strauss, Delphine. (2020e). *UK self-employed feel the pain of missing out on Covid support*. Financial Times (London), [Published December 23 2020e], [Cited December 23 2020]. <https://www.ft.com/content/0bc4c8d1-beda-4978-9f40-e3f54559c215>
- Triggle, Nick. (2020h). *Covid: Will variant force Nightingale hospitals to open?* British Broadcasting Corporation (BBC), [Published December 23 2020h], [Cited December 23 2020]. <https://www.bbc.co.uk/news/health-55413831>
- Adams, Richard. (2020d). *Ads preparing for England university returns delayed amid Covid test concerns*. Guardian (UK), [Published December 24 2020d], [Cited December 24 2020]. <https://www.theguardian.com/education/2020/dec/24/covid-ads-to-prepare-students-for-university-return-delayed-amid-rapid-test-concerns>
- Gallagher, James. (2020e). *Schools 'may need to close to control new variant'*. British Broadcasting Corporation (BBC), [Published December 24 2020e], [Cited December 24 2020]. <https://www.bbc.co.uk/news/health-55437283>
- Neville, Sarah, Anna Gross, and Andrew Bounds. (2020). *UK vaccine lottery 'overlooks' vulnerable minorities*. Financial Times (London), [Published December 24 2020], [Cited December 24 2020]. <https://www.ft.com/content/2b65aca8-bd0d-4e35-beb2-97239ec1a942>
- ONS. (2020z). *Coronavirus (COVID-19) Infection Survey, UK: 24 December 2020*. Office for National Statistics (UK), [Published December 24 2020z], [Cited December 24 2020]. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurvey/24december2020>
- Roxby, Philippa. (2020). *Covid: Sharp rises in infection levels in England, says ONS*. British Broadcasting Corporation (BBC), [Published December 24 2020], [Cited December 24 2020]. <https://www.bbc.co.uk/news/health-55436598>
- Paduano, Michele. (2020). *'Horrendous' ambulance delays at West Midlands hospitals*. British Broadcasting Corporation (BBC), [Published December 25 2020], [Cited December 26 2020]. <https://www.bbc.co.uk/news/uk-england-55430397>
- BBC. (2020du). *Covid-19: Tougher Covid rules begin for millions in UK*. British Broadcasting Corporation (BBC), [Published December 26 2020du], [Cited December 26 2020]. <https://www.bbc.co.uk/news/uk-55449596>

Wallis, William. (2020c). *UK doctors flag mental pressures pandemic puts on young people*. Financial Times (London), [Published December 26 2020c], [Cited December 26 2020]. <https://www.ft.com/content/36e31589-8e54-4241-9c36-3017a757e4f3>

Iyengar, Rishi. (2020). *If you want to travel next year, you may need a vaccine passport*. CNN, [Published December 27 2020], [Cited December 27 2020]. <https://edition.cnn.com/2020/12/27/tech/coronavirus-vaccine-passport-apps/index.html>

McKie, Robin, Toby Helm, and Jamie Doward. (2020). *Scientists call for UK lockdown after rapid spread of Covid-19 variant*. Guardian (UK), [Published December 27 2020], [Cited December 27 2020]. <https://www.theguardian.com/world/2020/dec/27/scientists-call-for-nationwide-lockdown-after-rapid-spread-of-covid-19-variant>

Merrick, Rob. (2020). *Musicians will abandon tours after huge new costs and bureaucracy of Brexit deal, ministers warned*. Independent (London), [Published December 27 2020], [Cited December 27 2020]. <https://www.independent.co.uk/news/uk/politics/brexit-deal-musicians-tours-concerts-b1779238.html>

Sample, Ian. (2020d). *Covid poses 'greatest threat to mental health since second world war'*. Guardian (UK), [Published December 27 2020d], [Cited December 27 2020]. <https://www.theguardian.com/society/2020/dec/27/covid-poses-greatest-threat-to-mental-health-since-second-world-war>

Elgot, Jessica. (2020c). *Michael Gove: reopening England's schools will involve 'trade-offs'*. Guardian (UK), [Published December 28 2020c], [Cited December 28 2020]. <https://www.theguardian.com/world/2020/dec/28/coronavirus-michael-gove-reopening-englands-schools-will-involve-trade-offs>

Mazzucato, Mariana. (2020). *Covid exposes capitalism's flaws*. Financial Times (London), [Published December 28 2020], [Cited December 28 2020]. <https://www.ft.com/content/9e7b2630-2f67-4923-aa76-0f240a80a9b3>

Andrews, Luke. (2020b). *Only 28 Covid patients are currently being treated in No10's £220million Nightingale hospitals while top doctor begs ministers to use ALL of the mothballed facilities - as make-shift units get dismantled 'because there aren't enough staff to run them'*. Daily Mail (London), [Published December 29 2020b], [Cited December 30 2020]. <https://www.dailymail.co.uk/news/article-9095087/Londons-Nightingale-hospital-quietly-broken-arent-medics.html>

BBC. (2020dv). *Covid: Lockdown visits to Brecon Beacons 'disappointing'*. British Broadcasting Corporation (BBC), [Published December 29 2020dv], [Cited December 29 2020]. <https://www.bbc.co.uk/news/uk-wales-55474533>

BBC. (2020dw). *Covid: UK faces 'catastrophe' without tougher action, warns scientist*. British Broadcasting Corporation (BBC), [Published December 29 2020dw], [Cited December 29 2020]. <https://www.bbc.co.uk/news/uk-55475240>

Joshi, Ashish. (2020). *COVID-19: The situation is bad and it's likely to get worse as NHS faces perfect storm*. Sky.com, [Published December 29 2020], [Cited December 29 2020]. <https://news.sky.com/story/covid-19-the-situation-is-bad-and-its-likely-to-get-worse-as-nhs-faces-perfect-storm-12174750>

King, Lorraine. (2020). *Inside a dismantled Nightingale hospital NHS England insist it is still 'on standby'*. Daily Mirror (London), [Published December 29 2020], [Cited December 30 2020]. <https://www.mirror.co.uk/news/uk-news/inside-dismantled-nightingale-hospital-nhs-23236124>

Andrews, Luke, and Jack Newman. (2020). *Red tape blamed for only 5,000 of the 40,000 retired NHS workers who volunteered to return to fight Covid being given jobs*. Daily Mail (London), [Published December 30 2020], [Cited December 30 2020]. <https://www.dailymail.co.uk/news/article-9097533/Red-tape-blamed-5-000-40-000-retired-NHS-workers-volunteered-given-jobs.html>

BBC. (2020dx). *Covid-19: Twenty million in England added to toughest tier of restrictions*. British Broadcasting Corporation (BBC), [Published December 30 2020dx], [Cited December 30 2020]. <https://www.bbc.co.uk/news/uk-55489932>

BBC. (2020dy). *UK internet use doubles in 2020 due to pandemic*. British Broadcasting Corporation (BBC), [Published December 30 2020dy], [Cited December 30 2020]. <https://www.bbc.co.uk/news/technology-55486157>

Campbell, Denis. (2020b). *NHS hospital staff illness or absence up to three times usual level*. Guardian (UK), [Published December 30 2020b], [Cited December 31 2020]. <https://www.theguardian.com/uk-news/2020/dec/30/nhs-hospital-staff-illness-or-absence-up-to-three-times-usual-level>

DfE. (2020d). *School contingency plans to be implemented as cases rise*. Department for Education (UK), [Published December 30 2020d], [Cited December 30 2020]. <https://www.gov.uk/government/news/school-contingency-plans-to-be-implemented-as-cases-rise>

Goodwin, Henry. (2020b). *Watch: Hancock denies dormant Nightingale hospitals being 'dismantled'*. London Economics, [Published December 30 2020b], [Cited December 30 2020]. <https://www.thelondoneconomic.com/politics/watch-hancock-denies-dormant-nightingale-hospitals-being-dismantled/30/12/>

Lindsay, Kali. (2020b). *MP brands Nightingale hospitals 'expensive Government PR stunt' as hospitals reach 'breaking point'*. The Chronicle (Newcastle), [Published December 30 2020b], [Cited December 30 2020]. <https://www.chroniclelive.co.uk/news/north-east-news/mp-brands-nightingale-hospitals-expensive-19538674>

BBC. (2020dz). *Covid: New Year's Eve warning as millions are told to stay at home*. British Broadcasting Corporation (BBC), [Published December 31 2020dz], [Cited December 31 2020]. <https://www.bbc.co.uk/news/uk-55494800>

Stewart, Heather, and Josh Halliday. (2020). *Schools chaos as 21m more people in England face toughest Covid curbs*. Guardian (UK), [Published December 31 2020], [Cited December 31 2020]. <https://www.theguardian.com/world/2020/dec/30/millions-more-people-in-england-go-into-tier-4-as-covid-cases-continue-to-soar>

