

ECO.

SUMMER 2021

- DESIGNING FURLOUGH / Clare Lombardelli
- MODELS EVOLVE / Ben Moll
- FRONTLINE NHS / Dr Melanie Cockroft
- SOFT SKILLS / Richard Blundell
- INEQUALITY MATRIX / Stefanie Stantcheva

A COUNTRY EMERGES

The post-Covid era is beginning —what has changed?

Midsummer is almost here. As we go to print with the first edition of ECO, the finish line can be seen. Despite rising concern about the spread of a new variant originating from India, 21 June looks set to mark a line in the UK's history. Restrictions will lift and the post-Covid era will begin.

There is much to cheer. Infection rates are low and 75% of people have had their first vaccine dose. Dark winter nights locked inside have been replaced by summer evenings spent on hastily built terraces. Supermarket shelves are well stocked with hand sanitiser and pasta —the shortages most recently reported are for craft beer and barbecues. The country is emerging.

But what kind of country? What toll has 18 months of social and economic stress taken, and how has the country changed as a result? Each article in our new magazine provides a fresh answer. From how to prevent stark inequality to why working from home may not be here to stay, from the future of cities to evolution of macroeconomics, leading economists add their piece to the giant Covid puzzle.

The way economies are run after the pandemic will surely be different. In part this is because the damage will linger. Our analysis of 'scarring' effects, for example, shows that spells of unemployment or missed years of education cause problems down the line. On top of this, the list of questions countries face has grown. In the UK, the location of power—should it be Westminster, or Edinburgh, Cardiff and Belfast?—is once again on the block. Across the world radical proposals to tackle wealth inequality are beginning to emerge. The pile of pre-pandemic questions, from industrial strategy to skills and productivity, have become tougher to answer.

ECO magazine offers a different approach too. The articles here introduce the realities of life as a policy economist alongside the latest findings of researchers at the cutting-edge. Binding together practical policymaking and evidence in this way reflects the goal of the Economics Observatory. We are building a new platform for the public, policymakers and academics to share questions and receive answers based on the latest evidence and best research. Our second issue will be published in November and will focus on sustainability. If you have any questions or answers on this topic or others, please get in touch. We hope you enjoy our new magazine.

Richard Davies
Director, Economics Observatory

Editors
Richard Davies
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Editorial manager
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Editorial team
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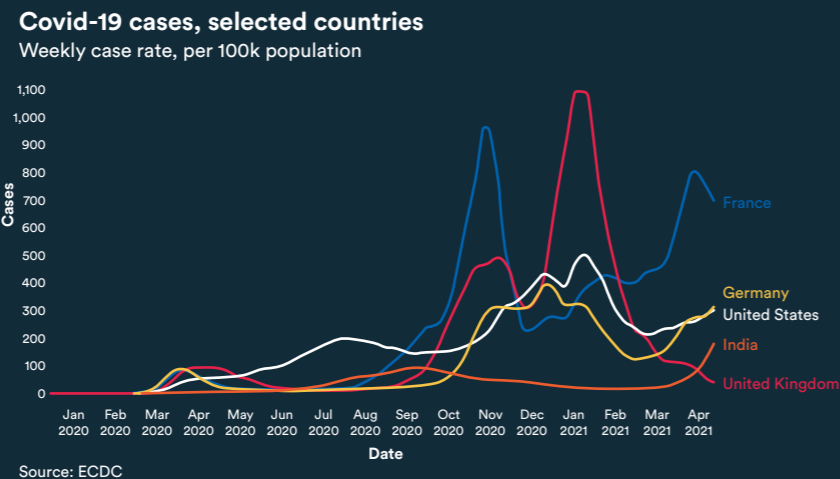
- 4 Covid-19: in numbers**
A data snapshot of the past year
- 6 A local crisis, everywhere**
The impact on cities, nations and regions
- 10 How prepared was the NHS?**
Diagnosing a capacity shortfall
- 12 Frontline stories: NHS**
Life as an intensive care doctor
- 14 Models evolve**
A new framework with inequality at its core
- 16 Footing the bill**
How the government is paying for the crisis
- 17 Reconnecting with wildlife**
Lockdown sparks an interest in nature
- 18 Damage assessment**
The uncertain prospects for firms
- 22 What next?**
Ten big questions facing the UK
- 24 Frontline stories: HMT**
Talking with the Treasury's top economist
- 26 Tackling inequality**
A matrix to guide the policy response
- 28 Generation Covid**
Counting the costs for kids and young people
- 32 Protecting tomorrow**
How to reduce the 'scarring' effects of recession
- 34 Soft skills, better jobs**
The value of training for low-wage workers
- 36 Competition or cooperation?**
Vaccine nationalism hampers the global recovery
- 38 City exodus?**
Urban futures in the post-pandemic world
- 40 WFH or back to the office?**
Remote working may not be here to stay
- 41 Hard hit**
Unequal burdens for women and ethnic minorities
- 42 Launching ECO**
Our founding and mission
- 43 Contributors**

COVID-19: IN NUMBERS.

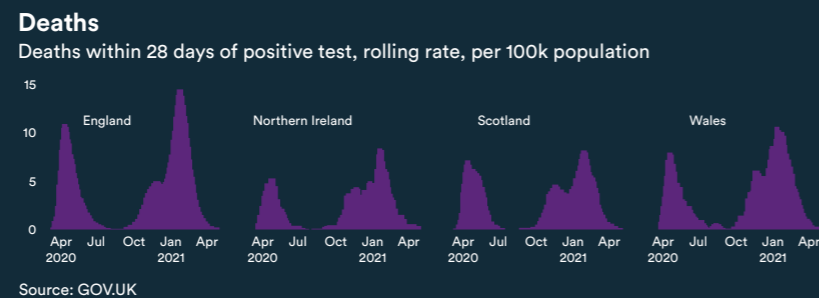
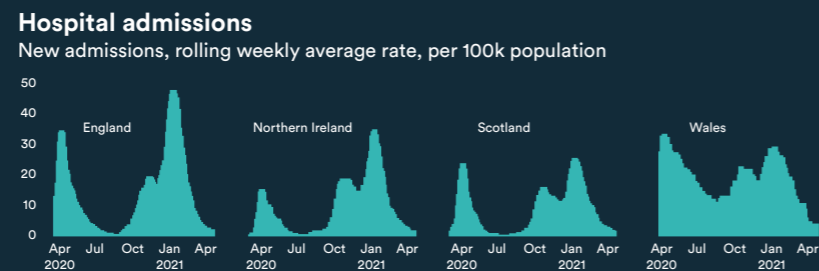
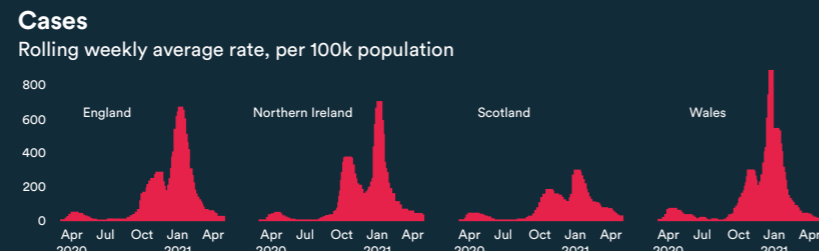
The story of a unique year, told through data. The charts here run direct from official sources. A live and interactive version of this dashboard is available via the QR code at the bottom of the page.

/ Richard Davies / Charlie Meyrick / Dénes Csala /

Following the initial pandemic in Wuhan, China, cases of Covid-19 began appearing across the globe in early 2021. With infection rates soaring, the world began to grapple with the idea of exponential growth.



In the UK, the first lockdown was announced on 23 March 2020 as people began to be admitted to hospital. The UK recorded its first death related to Covid on 2 March 2020, although we now know that this milestone was likely passed at the end of January. After a lockdown-free summer, the second and third waves arrived.

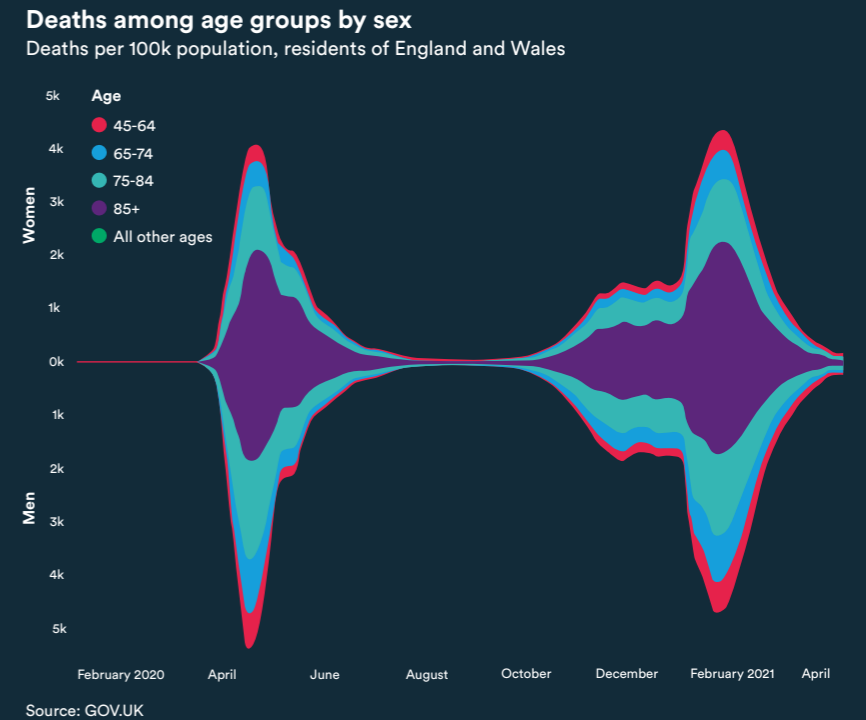


It became clear early on that this was an unequal virus. The elderly, men, members of ethnic minority groups and those in exposed occupations have been most at risk.

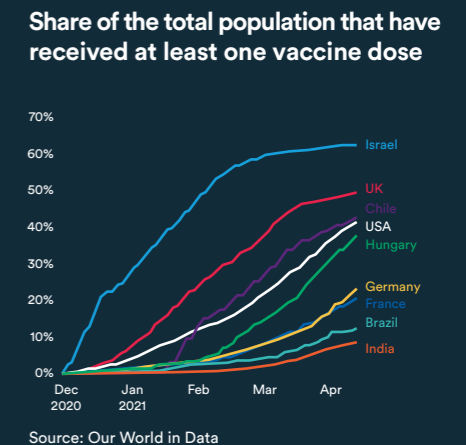
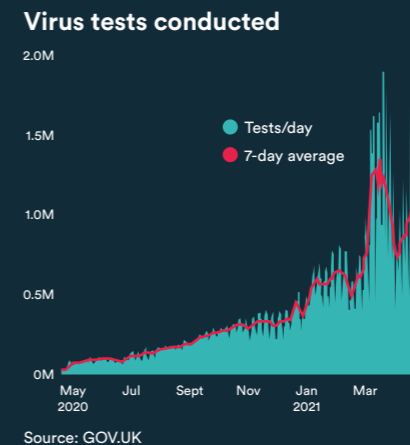


Two things were paramount: to find out who had the disease, via mass testing, and to find a vaccination.

By midsummer 2020 tests were running at just under 100,000 per day in the UK. In 2021 there have been 31 days on which over 1 million tests were conducted.



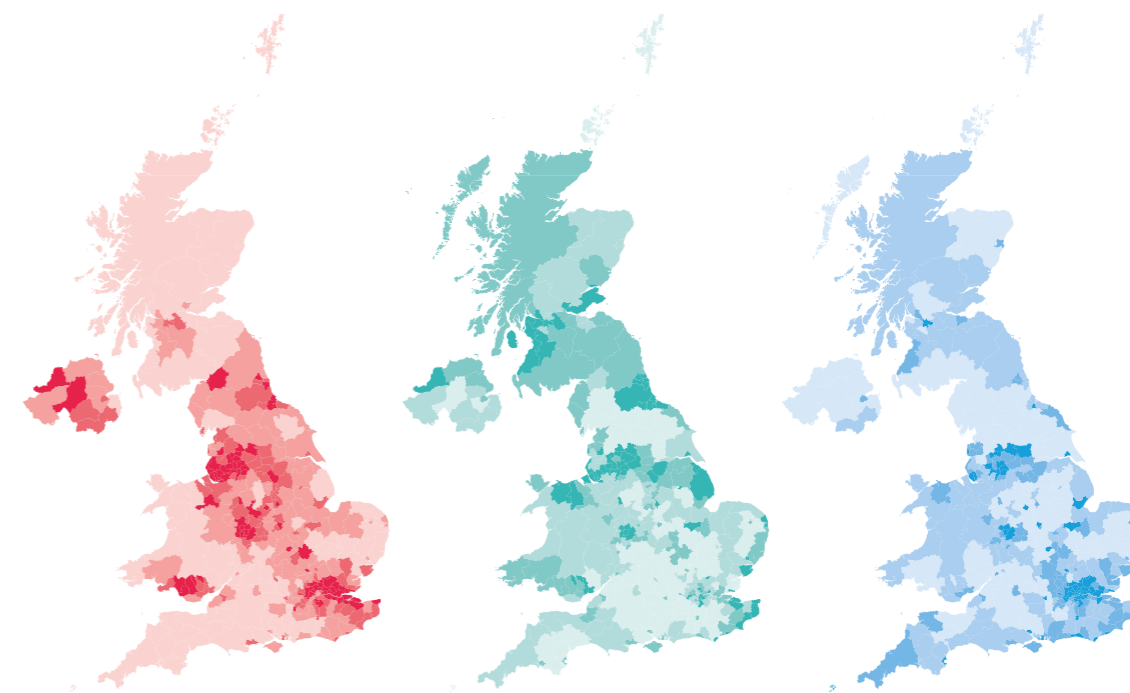
Announcements about the efficacy of the first vaccines were made in early November 2020 and the first doses were available by 8 December 2020 in the UK. Having been later than many countries to roll out its testing, the UK has led the world in the speed of its vaccine programme.



A local crisis, everywhere.

Local conditions, from the types of employers present in a region, to the pre-pandemic poverty levels in cities, have influenced how communities have fared during the crisis.

/ Esmond Birnie / Graham Brownlow / Guto Ifan / Stuart McIntyre / Jesús Rodríguez / Graeme Roy / Helen Simpson / Cian Sion /



Viruses and jobs

Covid cases, claimant count (pre-crisis) and increase in claimant count

Cases per 100k population

- 300 - 4499
- 4500 - 5999
- 6000 - 7499
- 7500 - 12000

Claimant count rate Jan 2020

- 0.80 - 1.69
- 1.70 - 2.49
- 2.50 - 3.39
- 3.40 - 7.10

Increase in claimant count rate Jan 2020 - Jan 2021

- 1.30 - 2.29
- 2.30 - 2.79
- 2.80 - 3.49
- 3.50 - 7.50

Notes and sources: Cases per 100k population to March 2021, source: coronavirus.gov.uk; Pre-pandemic claimant count rate (%), source: ONS; Change in the claimant count rate Jan 2020 to Jan 2021 (pp), source: ONS

The impact of Covid-19 has varied across the nations of the UK, testing each devolved administration's ability to work alongside central government. Devolved nations have almost complete authority over health and during the pandemic, the Scottish, Welsh and Northern Irish governments have taken their own decisions on measures to control the spread of the virus.

UK

The pandemic's impact has varied by town and region. Blackburn saw the highest rate of infections throughout the pandemic, with 12,140 cases per 100,000 people cumulatively. By contrast Plymouth has seen just 3,463 cases per 100,000 throughout the pandemic to date. These differences are correlated with economic measures in an intuitive way.

The incidence of Covid cases (map 1) has tended to be higher where more people were unemployed and claiming benefits prior to the pandemic (map 2). Proximity to neighbours matters too, with urban areas experiencing higher case rates than less densely populated regions, such as in the South West of England, West Wales and the Highlands of Scotland.

The third map shows the increase in the percentage of adults claiming benefits over the year to January 2021. Coastal areas, many reliant on tourism, went into the crisis with high claimant rates and have seen them increase. The relatively affluent areas of London and the South East have also taken a big hit during the lockdown: airports, leisure and retail—all big employers in these regions—have ground to a halt.



NORTHERN IRELAND

The decline in Northern Ireland’s GDP is expected to be greater than the UK average, given the larger share of locked-down sectors in employment, and the longer duration of restrictions. One estimate is a 12% drop during 2020, which compares to 9.8% for the UK.

The number of furloughed workers has risen in recent months, from 79,300 at the end of November to 99,400 by the end of March 2021. The self-employed scheme has supported an additional 62,000 people. The impact of the Covid recession on jobs has been felt much more strongly among younger and lower-income workers.

By March 2021, the Northern Ireland Executive had received about £3.5 billion for Covid response measures from the UK Exchequer. This budget is calculated using the population share of Covid-19-related spending increases in England. Several billion has also been spent through UK-wide initiatives including furlough, higher Universal Credit and loan guarantees.

Belfast has tried to keep pace with the stream of policy and spending announcements coming from Westminster. One proposal, made by finance minister Conor Murphy, for 2021-22 is a form of ‘helicopter money’: cash vouchers for each household to be spent in high street shops. Northern Ireland may require more stimulus than the rest of the UK, due to the dual shock it has faced: both the restrictions relating to the third wave of Covid plus the trade frictions imposed through the NI Brexit Protocol have held back the economy. The latter may last for some time.

Scan to read other ECO articles on regional and national differences



SCOTLAND

In Scotland, economic activity fell over 20% during the first six months of 2020. Some key sectors have been particularly hard hit, most notably tourism and hospitality which employ large numbers of people from Aberdeen to Wanlockhead. Financial support from both the UK and Scottish governments has helped firms stay afloat through the downturn. Yet the future is uncertain, a huge number of people have been furloughed, at the July peak close to 500,000 workers—around 35% of the workforce—were covered by the scheme.

Many of the policy levers relating to public health and business support are devolved, which has given the Scottish Parliament a key role in responding to this crisis. This has started an interesting debate in Scotland about whether devolution has helped. Data on public health and economic outcomes suggest few significant differences between Scotland and the rest of the UK. Yet local decision-making has been popular: there is evidence of stronger public support for the Scottish government’s handling of the crisis than for the UK government’s decisions.

WALES

Around 16% of the Welsh working-age population work in sectors partially or entirely affected by lockdowns, estimates suggest. This impact has varied by economic sector and demographic group: lower earners, women, young workers and ethnic minority groups have been hit hardest, exacerbating pre-existing inequalities.

Wales has a high share of key workers (40%) compared with the other nations and regions of the UK. At the same time, home-working (40.7%) has remained below the UK average (53%) throughout the pandemic. For this reason, jobs in Wales have exposed people to the virus.

The huge shock has been met by a vast fiscal response by the UK and Welsh governments. On top of the UK-wide furlough and income support schemes, the Welsh government has allocated over £2 billion to businesses through grants and rates relief.

Recovery will be complicated. New pressures, including long-term demands on health services and a potential surge in the unemployment rate, will need to be addressed through both UK-wide and devolved government policy over the coming years. It is critical that policymakers factor in regional variations and inequalities in their plans for recovery ●

THE NATIONS IN NUMBERS

Measure	England	Scotland	Wales	Northern Ireland
Population (% of UK)	55.9 million (84% of UK)	5.5 million (8% of UK)	3.1 million (5% of UK)	1.9 million (3% of UK)
Median wage (weekly)	£590	£593	£538	£529
Share of key workers	From 30% in London to 38% in Yorkshire & The Humber	37%	40%	42%
Home-working	From 35% in West Midlands to 57% in London	44%	40.7%	40.9%
Furlough scheme, numbers covered (as of 31 March 2021)	3,800,000 (87% of UK furloughed employees)	327,100 (7% of UK furloughed employees)	159,000 (4% of UK furloughed employees)	99,400 (2% of UK furloughed employees)
Monthly claimant count (as of March 2021)	1,247,695 (86% of UK claimants)	113,068 (8% of UK claimants)	59,173 (4% of UK claimants)	30,451 (2% of UK claimants)
Unemployment rate	5.0%	4.4%	4.8%	3.7%

HOW PREPARED WAS THE NHS?

Healthcare funding in the UK lags behind many other European countries. Years of austerity may have left the NHS understaffed and ill-prepared to cope with a pandemic.

/ Armine Ghazaryan / Corrado Giuliatti / Jackline Wahba /



‘Stay home, save lives, protect the NHS’. The government’s message at the start of the pandemic evoked concerns that with cases rising exponentially, hospitals across the country could run out of beds for patients, or staff to take care of them. Reports from the British Medical Association that around half of doctors lacked personal protective equipment added to the concern.

While the pandemic has put health services under extreme and unexpected pressure, the past year has raised questions about whether the NHS was adequately funded to prepare for such an event. Was the government doing enough to protect the health service in the years leading up to Covid-19?

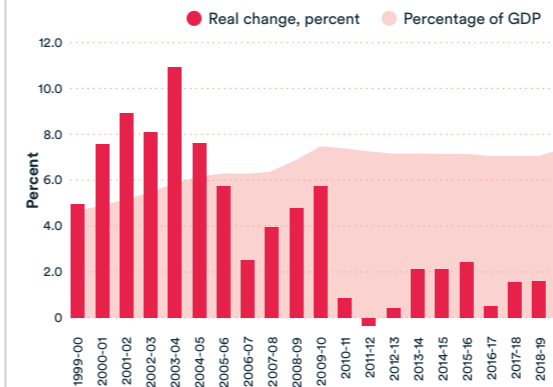
COSTS GROW

Globally, healthcare costs are growing fast, driven in part by an ageing society. In the UK it is estimated by the Health Foundation and Institute for Fiscal Studies that health spending needs to increase by at least 3.3% per year up to 2033-34 in order to keep up with demand, or 4% to provide any improvement in services.

Yet, since 2010, the real average annual growth in UK government expenditure on the health sector has been only 1.3%. A decade of shortfalls, due to austerity measures taken to lower the UK’s deficit, means that spending per person (at £3,408 per year in 2019) is only slightly above the OECD average (£3,092). But this still lags behind West European and Nordic countries and is the second lowest in the G7. This growing gap matters as evidence suggests healthcare spending is linked to positive health outcomes.

Growing too slowly

Change in UK public sector expenditure on healthcare and expenditure as a percentage of GDP, real terms change



Source: HM Treasury Public Expenditure Statistical Analyses 2020
Full notes: see online version

The shortfall means the NHS has little spare capacity. Since 2011, hospital occupancy has often been around 90% and in the two years prior to the pandemic, critical care bed occupancy has averaged 81%. The number of doctors per 1,000 people in the UK is the second lowest in Europe at 2.8, and the number of nurses is below the OECD average (7.8 compared with 8.8 per 1,000). This explains why the influx of Covid-19 patients caused such concern.



Scan to read other ECO articles on health

The NHS has been hiring. Since 2010, the number of professionally qualified staff has grown by 1% on average each year, bringing overall growth during this period to around 10%. This has predominantly been driven by an increase in the number of doctors, with the rise in nursing numbers much smaller (0.3% annually and around 4% over the decade).

But this pace has been too slow, failing to keep up with population growth, and does not translate into more doctors and nurses per head. The UK relies on foreign-born doctors and nurses—who made up 20% of healthcare workers in 2019—so leaving the European Union has made recruitment and retention harder. The number of EU doctors working in the UK has been increasing at a slower pace than previously and the supply of EU-born nurses has dropped. This shortfall is not being made up by UK-born students training in healthcare.

A WAY FORWARD

To ensure the NHS is able to meet the challenge of ageing populations, the government needs to invest in training UK-born healthcare professionals. This takes time so recruiting and retaining staff from abroad will be vital if the country is to manage the Covid-19 pandemic and Brexit transition—and to deal with potential future global health emergencies.

Targeted immigration policies, such as the Global Skill Partnership, which links skill formation and migration will be needed. Through this initiative, destination countries could agree to provide technology and finance to train potential migrants with targeted skills, such as healthcare, in the countries of origin.

At this critical time, it is also important for the UK government to ‘protect the NHS’ by ensuring that spending on healthcare is growing in line with an ageing population. There is a need for a comprehensive assessment of the appropriate level of spare capacity in the NHS. The pandemic has shown that the most efficient systems—those pushed to capacity at all times—may not be the most resilient

Metric	UK	OECD average
Doctors per 1,000	2.8	3.5
Nurses per 1,000	7.8	8.8
Spending per head	£3,408	£3,092
Share of population over the age of 65	18.3%	17.2%

Frontline stories: NHS.

Carol Propper talks with Melanie Cockroft, a doctor working in anaesthetics and intensive care medicine.



CP: I imagine the pandemic has made this an extraordinary year. Can you share what it's been like?

MC: Since the pandemic hit, it's just been much busier, and we haven't had an opportunity to stop and reflect properly. In practical terms, how the intensive care unit (ICU) works has changed, as have the kind of patients we're seeing.

During the first wave, the hospital stopped all services other than absolute emergencies, so we had predominantly Covid patients in intensive care. The rest of the hospital felt eerily quiet. People were scared to come to hospital and GPs tried to manage more in the community rather than refer patients.

By the time the second wave hit, we had tried to resume as much of our normal service as possible to reduce waiting times. Since then, there has been an absolute drive to do as much urgent elective work as possible. But, by definition, the patients that need that type of care are sick enough or need big enough operations to require intensive care as well. Having this mix of Covid and non-Covid patients brings additional complexities in terms of staffing and logistics because of the risk of infection.

As well as clinical challenges, it has been emotionally difficult. In intensive care, we have spent years learning how to break bad news and communicate with families to guide them through probably the hardest times of their lives. But we've had to do a lot of this by phone and often only invite them into the hospital at the end of their loved ones' lives to say goodbye, which has been incredibly hard.

CP: As you've tried to keep urgent elective care going, are the non-Covid patients different from those you'd normally see?

MC: Many of the operations are less 'elective', but rather planned urgent operations. In some cases, the patients are less well when we are seeing them. For example, if someone was listed as needing an operation quite urgently in March last year, but they weren't able to have it until the autumn, there is a risk that their chronic condition will have progressed in that time.

CP: It sounds like you've had to cope with both Covid and, on average, sicker patients. We also went into the pandemic with a shortage of around 40,000-50,000 nurses and a very low number of critical care beds. How has that affected hospitals? Have there been any positive outcomes, for example imaginative use of resources? Or negative, in terms of staff morale, mental health and even burnout?

MC: I came back into the NHS in 2013 after working abroad for five years. The difference in that time was huge and year-on-year since it has felt worse. As you said, before the pandemic, there was already a shortage of nurses, doctors and other healthcare professionals. Without wanting to sound too romantic, we've all worked together in these adverse settings for quite a few years, so we just have to get on and do our work. That's what it's felt like during the pandemic too.

The first wave seems like a blur now because we were treating a virus no one had managed before or knew the implications of, including for how long patients would need intensive care. We used information available from other countries to help guide us, but it was a bit of a best guess about how to reallocate staff and provide care. In the summer, we were incredibly busy because of the increased non-Covid workload, but we were able to make plans for the second wave. One of the main things we took away was that reallocation of staff wasn't just about numbers. We're all highly trained and can be most helpful if we stick to our specialties. So, for example, putting doctors into nursing roles does not work—nurses do nursing much better!

Overall, the teams of people who have worked together have been amazing. On one day you might have had an orthopaedic surgeon and an ear, nose and throat (ENT) professor helping roll patients. Crucially, this allows us to keep working in our specific intensive care roles.

But over the last few weeks, as the Covid numbers have started to fall and elective operating is increasing again, it is very clear that there is no time to rest and recover. And we're now starting to see the cracks in people who have maybe just tried to hold it together and get on with it, knowing that if they weren't able to come to work, it would put extra stress on their colleagues.

I think the next couple of months will be hard—we're still in lockdown which means that staff can't leave work, go home and do something different. Everyone is struggling with something, so no one feels they can fully offload to anyone else. You almost need to find someone who has had a less bad day than you if you need to talk.

The teamworking and morale has been phenomenal, and it has been a pleasure to be part of that kind of response to something. But it's not finished yet and we've still got a lot to go through.

CP: Looking forward, what do you think are the key pressures? Case numbers are going down but there's a huge back log of patients needing treatment, so how do you see the next year?

MC: The first thing is that we still don't know the natural time course of the disease and the pandemic. We can make reasonable guesses based on other coronaviruses and other viral pandemics, but we don't really know how Covid-19 will influence services from now on. Our best hope is that even if there are further strains or waves, vaccinations will reduce hospitalisation and pressures on services. But there's always a risk that that doesn't happen.

I think there will be people who will leave the NHS after this, whether because they have delayed retirement or because their physical or mental health has changed during the pandemic. But I've also heard of people who have seen what the NHS has done this year and want to work here. Additional recruitment would be amazing but will take many years to come through to the frontline.

In reality, I'm not sure what the coming year holds. We say all the time that if there was a little fleet of NHS workers who had been given a holiday for the past year who could come back in and give us all a break for just two weeks it would be incredible. I don't know is the honest answer and I'm sure that's how everyone feels ●



Models evolve.

By placing the differences between individuals at their core, a new economic framework is helping us understand rising inequality, the pandemic and the recovery.

/ Ben Moll / Natalie Rickard /

The world is unequal both in its downs and its ups: the costs of recessions hit some harder than others, the benefits of economic growth lift some and leave others behind. Economy-wide events therefore affect inequality. In turn, the way the economy recovers after recessions and grows in the long run depends on inequality. As Angus Deaton put it:

“While we often must focus on aggregates for macroeconomic policy, it is impossible to think coherently about national wellbeing while ignoring inequality and poverty, neither of which is visible in aggregate data. Indeed, and except in exceptional cases, macroeconomic aggregates themselves depend on distribution.”¹

While feedback loops between economy-wide events and inequality have always existed, Covid-19 has amplified them: some households have faced extreme hardship, others have emerged relatively unscathed. Can models help us understand the interaction between inequality and the macroeconomy? If so, how can they help us make better policy decisions?

Most crucial economic questions cannot be answered solely by analysing data. The availability of statistics is often limited, and it can be hard to separate correlation from causation. Unlike natural scientists, we can't run realistic large scale 'experiments' to understand how policy tools like interest rates or government spending affect the economy. Theoretical models help us tie empirical evidence into coherent narratives about the workings of the economy.

Models are not intended to be a perfect replication of the world. They are tools that set out a few vital mechanisms that affect the economy and help us ensure that our intuitions add up. The London Tube map is a good analogy: laying out tube lines in a simplified way makes route planning much easier, even though the map is far from geographically accurate. In economics, we capture elements we are interested in—for instance, limits on borrowing or wealth inequality—and make assumptions to keep the model simple enough to use.

One simplifying assumption used since the 1970s is that there is a 'representative' household in the economy. By assuming each household acts approximately like this 'average' household, things are made easier. Simple versions of how firms, governments and central banks behave can be added to the mix to help us tease out the effects of economic shifts, like a change in interest rates.

While this simplification is useful it comes at a cost. First, we can't answer questions relating to the distribution of economic outcomes—for instance, how do income and wealth inequality change during a recession? Second, there are many instances in which the differences between households mean that economic outcomes—and as a result the policy recommendations we make—would vary with the level of inequality between households.

Economists have long sought to reflect this. Some of the first models were developed by Nicholas Kaldor, Luigi Pasinetti and others after the Second World War. These often focused on the differences in income between classes, in particular workers versus capitalists. Beginning in the late 1980s and 1990s a modern take, typically called 'heterogeneous agent' (HA) models, were developed. They included more differences between households that we see in reality: data show that some households live paycheck-to-paycheck, while others have a large pool of savings to rely on or find it easy to borrow on their credit cards or against a house if needed.

The 2008 crisis showed how varying financial health across households (for instance, levels of mortgage debt or access to liquid savings) plays a vital role in recessions. These differences are central to the models developed since. One example are 'Heterogeneous Agent New Keynesian' (HANK) models. This approach builds on HA models but adds sticky wages or sticky prices (the slow adjustment of pay and prices was something John Maynard Keynes discussed—hence their 'New Keynesian' label).

As well as inequality of income and wealth, new models include balance sheet details such as a household's illiquid assets (things like pension wealth and houses, which aren't easy to draw on in times of financial stress). Different households now respond very differently to economic shocks. Some households must slash spending if their income falls suddenly (either because they have few savings or because their assets are illiquid). Other households can use their savings and 'smooth' their consumption. In this new framework inequality plays a major role.

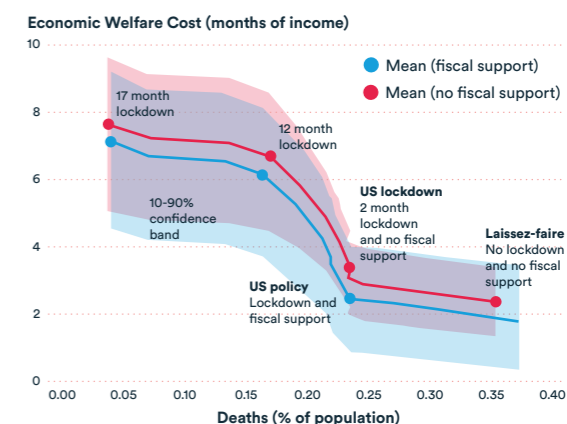
PANDEMIC ECONOMICS

Many of the families hardest hit by the pandemic have low liquid savings and are therefore financially vulnerable. Lower-income workers were more likely to have jobs in sectors of the economy, such as restaurants and hotels, that were most affected by the pandemic and subsequent lockdowns. High frequency payroll data have shown that these poorer households saw a much larger fall in wages, though government benefits partly mitigated the hardship. Richer households were more likely to be able to work from home, saw less of a fall in income, and ended up saving much more as they reduced consumption.

Researchers and policymakers seeking to understand the implications of these inequalities face a challenge: to bring economics and epidemiology together. This can be done by combining an epidemiological model of virus transmission into a heterogeneous agent economic model. This helps us understand why the impact of the pandemic is so unequal and to evaluate possible policy responses. The model shows that the middle class are hit hardest; the poorest receive more government transfers, which help insulate them from the shock, while the rich are less affected by the pandemic. In the chart below the red line shows the trade-offs between lives lost and economic costs of lockdowns of various lengths. The blue line shows the lower costs when fiscal support is used. The bands around these lines show the inequality in economic costs across households. The lessons are clear: the width of the bands show just how much inequality there is, the way the bands intersect shows how vital getting policy right is.

Pandemic possibilities

Economic and health costs with and without fiscal support



Source: Moll, Kaplan and Violante (2020)

There is more to do. Although the implications of inequality are better understood, many questions—racial inequality, geographical inequalities, inequalities of opportunity and intergenerational inequalities—remain open. The latest research examines how inequality may contribute to low interest rates, how rises in gender and racial equality across occupations have increased long-run growth, and the implications of demographic shifts on inequalities. Others are exploring how insights from behavioural economics affect our understanding of the economy and policy. The heterogeneous agent approach is well-suited for these endeavours because it aims to build models 'from the ground up', taking seriously what we know about households, and how they differ, at the micro level. Models, like the economies we seek to understand, are in a constant state of evolution ●

¹ (2016 Nobel Prize Lecture)

FOOTING THE BILL.

Borrowing by the UK government has hit peacetime highs this year. But a sharp rise in domestic saving by households has offset public spending.

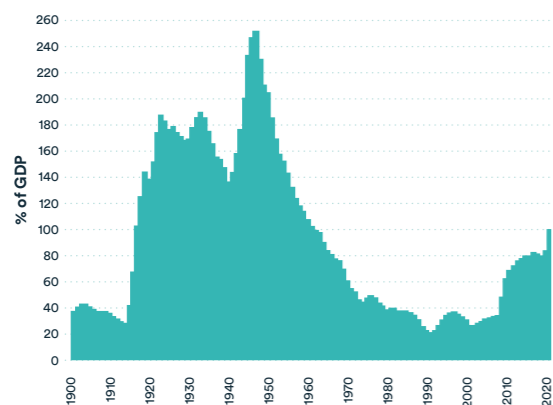
/ Hande Küçük /

To meet the costs of Covid, Britain has had to borrow. Public sector debt rose by £334 billion from April to December 2020, reaching 99% of GDP by the end of the year, the highest level since the early 1960s. Three things have driven this surge in the UK's debt ratios: increased spending due to government support schemes; a fall in tax revenue; and the sharp decline in GDP.

Despite the extraordinary amount of new borrowing, government borrowing costs have stayed low: someone holding a 10-year government bond can expect just over 0.7% a year. Monetary policy has helped here: in response to the pandemic the Bank of England cut its interest rate to 0.1% and increased the size of its quantitative easing (QE) programme to £895 billion. By buying so much government debt, the Bank has helped keep the cost of borrowing down.

Time to borrow

UK government, public sector net debt (% of GDP)

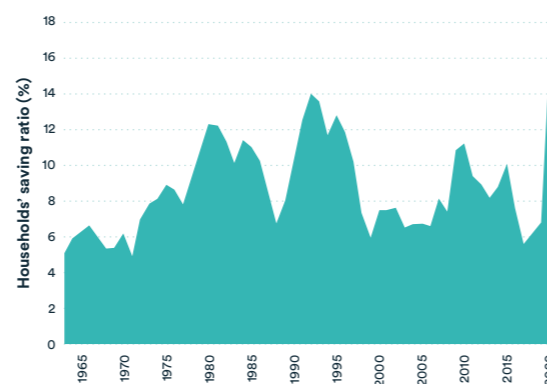


Source: ONS
Note: Public sector net debt excluding public banks, latest data February 2021

At the same time as the government borrows more, British people and firms are saving more. Although the pandemic and lockdowns have lowered the income of many workers and businesses, the opportunity to spend or invest has evaporated. When spending falls more than income, the saving rate rises.

Saving surges

Household saving ratio (% of income)



Source: ONS

Here, inequality is important. While middle- and high-income households have seen their saving rates increase, low-income households have seen their saving rates decline. Despite this important caveat, the household saving rate has surged: rising from under 7% in 2019 to over 16% in 2020. This is the highest saving rate on record.

On the one hand, these changes in savings patterns make it easier for the government to fund its debt. On the other hand, they may delay the recovery if lower spending persists.

A weaker recovery due to lower consumption and investment, in turn, may then keep government borrowing requirements at high levels for longer than expected.

Despite the massive monetary and fiscal stimulus in the aftermath of the global financial crisis, it took around four years before consumer spending and business investment began to recover, and government borrowing started to decline. This time around, spending and saving will depend on the evolution of the pandemic, how the associated restrictions on activity evolve, and the speed at which the economy adjusts to post-pandemic normality.



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RECONNECTING WITH WILDLIFE.

Nature emerged as a way to spend time and money, and a boost to mental health.

/ Mike Brock / Jacqueline Doremus / Liqing Li /

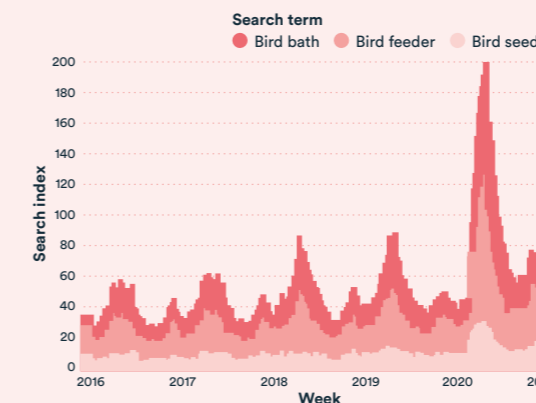
Covid has changed how we spend our time and money. With gathering indoors prohibited, many have turned to pastimes that are more solitary and undertaken outside. In harsh times, the wildlife inhabiting our gardens and local parks has been an unexpected crutch.

People have spent more time bird watching than before the pandemic. Data show that those with little prior interest began to gaze at local birds, while committed birdwatchers devoted more hours to their hobby.

Shopping patterns followed too. There was a significant increase in searches for wildlife-friendly products, such as bird tables, bird baths and bird food (see chart). This has been mirrored by a spike in purchases of apps that help to identify bird species.

Flocking together

Trends in search terms, UK, 2016-2021



Source: Google, 2016-2021



In addition to this economic boost, the renewed value many now see in local habitats may help to improve the chances of survival for some species. The numbers of house sparrow, starling and song thrush have gone down by more than half over the last 25 years. Much of this population decline can be attributed to the destruction of natural habitats and falls in biodiversity — particularly insects that birds feed on — caused by the expansion of our cities and towns.

Human wellbeing may have improved too. Deeper engagement with the natural world offers a new form of interaction from which people can establish feelings of connectivity and purpose, offsetting the segmentation and isolation that lockdown imposed. Looking ahead, this poses big questions for the way we interact, value and protect our backyard wildlife.



Damage assessment

The impact—to demand, supply, uncertainty and resilience—depends which industry a firm is in.

/ Lena Anayi / Nicholas Bloom / Philip Bunn / Paul Mizen / Myrto Oikonomou / Gregory Thwaites /



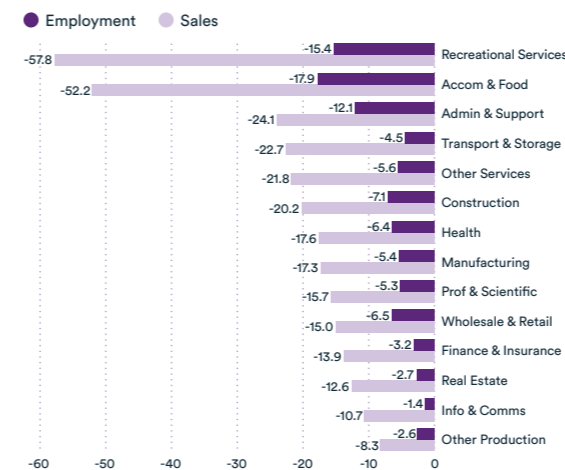
Businesses across the UK have been negatively affected by the pandemic, but the damage has not been equal. Firms responding to the Decision Maker Panel (DMP) survey report that from April 2020 to March 2021, their sales were 21% lower and their investment was 26% lower (on average) than they would otherwise have been.

Certain sectors and certain firms within them have suffered more than others. Industries that rely on personal interactions or travel have been hardest hit. This includes recreational services, such as gyms, and accommodation and food services (pubs, cafés and restaurants), where sales were more than 50% lower than normal in the past year due to Covid-19.

The effects on employment have also been large, but the chart below shows that they were smaller than the falls in sales, in large part due to government support programmes, such as the Coronavirus Job Retention Scheme (CJRS).

Falling sales and jobs

Expected impact of Covid-19 on sales and employment from 2020 Q2 to 2021 Q1 by industry

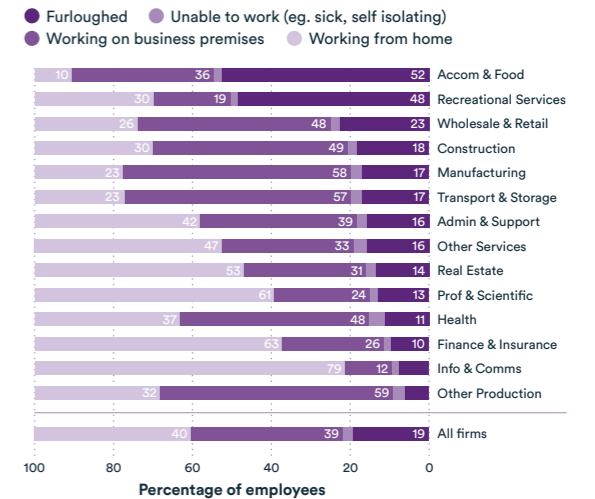


Percentage impact of Covid-19 from 2020 Q2 to 2021 Q1
Source: Decision Maker Panel (DMP), full notes: see on-line version

Like sales declines, job losses have varied by industry. Businesses have laid off some workers and used the CJRS to furlough others. Firms in the DMP survey reported furloughing around a fifth of their employees over the past year on average; these workers were still employed but not required to work any hours. For firms most affected by social distancing and lockdowns, the proportion was far higher. Businesses in accommodation and food, and recreational services reported having furloughed the largest proportion of their workforce.

Working through Covid

Impact of Covid-19 on employees



Source: DMP, full notes: see on-line version

Apart from falling demand, firms might also reduce output because they are unable to obtain crucial inputs or supplies. Around 40% of firms in the DMP survey reported some disruption to their supply chains during the second quarter of 2020.

“

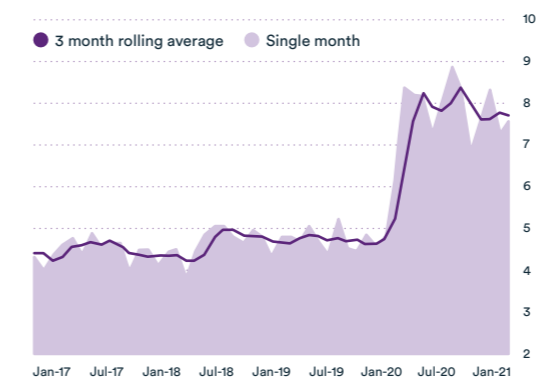
We lost nearly 50% of our income, our reserves were depleted and our building was closed to the public. During the times we were able to re-open, social distancing meant that our capacity was cut to 20% of normal levels.”

Clare Reddington, Watershed cinema, Bristol



Worrying times

Uncertainty around year-ahead sales growth

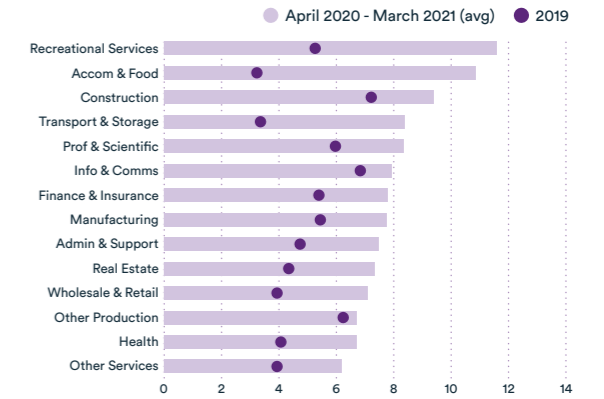


Source: DMP, full notes: see on-line version

This uncertainty was larger for firms in recreational services, accommodation and food, construction, and transportation and storage, the sectors most affected by the Covid-19 pandemic. And, while still high, there was a relatively smaller increase in uncertainty for firms in industries such as other services, health and other production (agriculture, mining and quarrying, and utilities).

Concerns everywhere

Uncertainty around year-ahead sales growth by industry

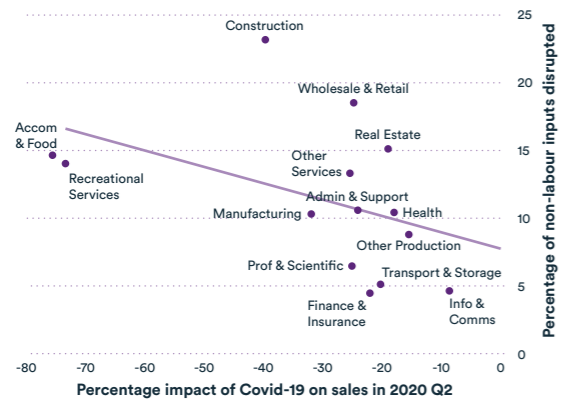


Source: DMP, full notes: see on-line version

Overall, the sectors and businesses that have been most affected by lockdowns and other social restrictions have also suffered the most in terms of loss in sales and impacts on staff. It is also these industries, principally those related to food, travel and leisure, which have faced significant future uncertainty ●

Sales and supplies

Disruption to non-labour inputs from Covid-19 in 2020 Q2 and expected impact of Covid-19 on sales in 2020 Q2 by industry



Source: DMP, full notes: see on-line version

The Covid-19 crisis has also led to a sharp increase in uncertainty for everyone—firms, workers and consumers. Overall uncertainty increased substantially with 70% of businesses reporting high or very high levels. On average, 85% of firms reported that coronavirus was one of their top three sources of uncertainty over the year to March 2021.

“

Lockdown has been hard for independents, and at our small shop we had to react quickly. By introducing click and collect and selling through our own website and Bookshop.org, we've been doing well. This new site has given us a national platform to create and curate interesting lists that our customers can browse from home.”

Jessica Paul, Max Minerva's Bookshop in Bristol



Watershed cinema and Max Minerva's bookshop were contacted separately by the ECO team for this article.

What next?

Ten big questions the UK faces in the Covid recovery.

/ Tim Besley / Jagjit Chadha / Richard Davies / Huw Dixon / Diane Coyle / Rachel Griffith / Michael McMahon / Carol Propper / Graeme Roy / Sarah Smith / John Turner / Romesh Vaitilingam /

1. VACCINES

How can vaccines be distributed across the world? What happens if the virus becomes endemic and how should we protect ourselves against future pandemics?



3. SUSTAINABILITY

What policies does the UK need to deliver green growth?



2. INEQUALITY

Covid-19 has exacerbated inequalities by gender, age, ethnicity, and occupation. Which will be the most effective policy responses over the medium and longer term?



4. PRODUCTIVITY

A longstanding puzzle: how can UK policymakers improve productivity, and how might this challenge have been magnified by Covid-19?



5. DEBT

Public net debt has risen to £2.1 trillion or 98% of UK GDP. And abroad, many developing countries are set to be saddled with substantial debt. How will countries pay for the pandemic?



7. REGIONALISM

The urban-rural divide, the future of cities and devolution present policymakers with problems. What policies are needed for the UK to truly 'level up'?



9. TRADE

How will the final EU deal, Covid-19, the Biden administration and continued growth of China affect the next chapter of UK trade?



6. TECHNOLOGY

How will digitalisation affect the future of work? What are the opportunities and threats to our work and social lives from robots, artificial intelligence and social media?



8. WELLBEING

The strain on mental health has risen, particularly among young people, key workers and those vulnerable to suffering from loneliness or isolation. How can policy best support wellbeing?



10. MONEY

With quantitative easing embedded, rates pinned to the floor and cryptocurrencies resurgent, what is the future of monetary policy and central banking?



Frontline stories: HMT.

Richard Davies talks with Clare Lombardelli,
Chief Economic Adviser at HM Treasury.

RD: The past 18 months have been so extraordinary I think we need to start with a benchmark: how does the pandemic compare to the 2008 crash?

CL: In some ways it has been similar, in some ways very different. During both there was a sense of the utmost urgency since it was clear that many jobs and businesses were at risk. And in both there was a sense that you can't fully understand what is really going on in the economy, since the crisis is developing in real time. This sense of rapidly evolving situations made for huge uncertainty in both cases.

The differences are greater though, I think. The first is that this was not primarily an economic crisis. It was a public health crisis in which the government had to take decisions that they knew would harm the economy. Second, to use some economics jargon, this was a 'real economy' crisis rather than one deep in the financial sector like the 2008 crash. That is, it was going to affect people's jobs and businesses in every sector, in a direct way, and immediately. Finally, the experience within HM Treasury and Whitehall was different: 2008 mainly involved those working on finance—with people quickly drafted in to boost those teams—the pandemic involved every team in HMT covering every sector of the economy. Everyone was working on Covid-19, and it was affecting everyone's personal lives at the same time too.

RD: Did these differences alter the way you advised ministers on the policy response?

CL: Yes—the tools were very different. In typical recessions the role of policy is normally to stimulate activity. But in this case, we needed to stop face-to-face interaction, to stop people travelling to work. So the regular playbook—policies that boost activity—was not one we could use and a new approach was needed.

RD: Back in 2007 there is a particular day in August I think everyone working at HM Treasury and the Bank of England probably remembers, when it became clear Northern Rock was going to fail and we were really in a full crisis. Can you remember a specific day this time?

CL: Again it was not quite the same: there wasn't a specific day or event because of the way the pandemic was building. The government presented a Budget (on 11 March 2020) and this included a large package of support measures. Later it became clear that the

pandemic was on an accelerating path and that things would have to be done that had never been considered before—to impose a lockdown on the economy.

At that point things changed—the Chancellor decided to introduce measures—take the furlough scheme as an example here—that were different to anything that had been done before. Because this crisis was different to anything that had come before.

RD: So you faced a massive crisis, and in policy terms were in completely uncharted waters. What guided the early thinking on how to respond?

CL: The overarching economic concern was always employment and jobs. The government was conscious of the need to minimise the long-term impacts of the immediate crisis, preserving jobs and businesses where possible. The Treasury as a department has a sense of economic history and the long-term economic and social costs of unemployment and economic inactivity. The UK experience of the 1980s was important here. And, in economic terms, if you think this crisis is temporary rather than some structural shift the economy needs to go through, the objective is to protect the matches between workers and jobs, firms and capital. In economic terms, the government sought to minimise the risk of hysteresis (job-market 'scarring').

RD: So history and labour market economics are useful guides—they tell you to protect jobs—but the sheet of paper is still pretty blank, how does the government actually go about designing the furlough scheme?

CL: The Chancellor's diagnosis was clear: the challenge was an enforced reduction of economic activity—the fact that we were putting everything into hibernation. It was about going back to first principles. Policy needed to protect the economy, keep worker-firm matches in place, and provide certainty. We didn't run lots of forecasts, since the level of uncertainty was so high, and forecasts take time to produce.

Looking overseas can help. The government had never done this before, but policies we could learn from existed elsewhere. Germany, for example, has a scheme that supports firms and workers by topping up wages. (The *Kurzarbeit* scheme replenishes the wages for those who are put onto short-time by firms that cannot employ them full-time). Of course, the pandemic was different—

some firms' demand was going to disappear completely for a time—but those types of policies did offer some guidance. Still, it was a huge policy experiment.

RD: How does training as an economist help? Were there particular papers or research that were important?

CL: Economics really did help, because the best way to understand what was going on was to think quite fundamentally about the economy. To ask what the economy is made up of—consumers, firms, government—and to think about the effects on each of those groups. Another set of questions were about behaviour: how would firms and consumers respond to the lockdown, and how might that vary by sector?

Economics helps with data too. We quickly amassed a huge amount of information—micro data, macro data—and surveys, which were helpful. Given the urgency, we used fast-access data in ways we had not done before—things like credit card spending and Google mobility data to try to understand what was going on. An economic framework helped us make sense of this.

RD: So it was not a particular paper or area of research that helped, but an economic mindset: the fact that sitting round the table you have people—including the Chancellor—who are trained in the basic building blocks of economics, so that you can ask the right questions?

CL: Exactly that. The thing that economics really helps with is giving you a way to distinguish what is important from what is not. In a situation like this there is a huge amount of noise. You need to look at the size of the sectors, the numbers of people affected when considering each policy—this tells which things you should target because they are first order. Of course, there are lots of difficult boundary cases, but you need some way to prioritise, and an economic framework helps here.

RD: OK, so you've now got your policy—let's take furlough—written down on paper, how do you make it happen in the real world?

CL: Delivery of the furlough scheme was testament to joint working and HMRC who delivered it. This was a new payment that would have to go to hundreds of thousands of firms. So once the policy is designed in detail you still face big questions over how to implement it. How are we going to determine the payments and how will they be delivered and when? You face two constraints. You are trying to design something that is going to be effective, but you also need to design something that can be delivered in the time that you have got. The delivery issues affect the design and the design affects the delivery.

RD: This is a vital insight, so let's clarify. In government the challenge is not just about picking the best policy—be it tax or spend or furlough—but how you then make it happen.

CL: Yes and in this case it meant many people working outside the boundaries of their normal jobs. In the end, Whitehall had a fantastic join up all the way from

economic theory and behavioural science to employers, payments experts, and IT specialists to oversee the system. Government economists need to be able to talk to and work with all these people.

RD: Has Covid changed the UK's economic challenges or do old questions remain?

CL: The crisis has exposed things that were already there in the economy, rather than fundamentally changing them. To take one example, think of the priority to 'level up'—making sure prosperity and opportunity are more evenly distributed across the entire country. This was important before the pandemic but has become more important as we rebuild because Covid exposed differences across the country. Other longstanding challenges for the UK economy remain—getting industrial strategy right, the productivity puzzle, the role of infrastructure, the role of science, and of course, climate and sustainability.

The reason to be excited as an economist is that there is lots of emerging evidence in these areas, making them areas where analysis and research can be incredibly powerful. We are always looking for and using new evidence to find the best way to make policy effective.

RD: And what about the way the Treasury works—will your new approach to real-time data, for example, be something that new recruits joining the department can expect to get involved in?

CL: Well, new hires to HM Treasury and other departments can expect to use data more, simply because our ability to access and process data is increasing all the time. When it comes to data it is great to have a lot but the skill is in working out what is useful and what it tells you. The new real-time spending data are useful and some of that we will continue to use. But the gold standard for data does remain the national statistics. Yes, they can take longer to produce, but this is because the ONS uses a wider range of sources and does so much quality assurance. GDP remains the best measure of the overall economy, even though we supplement it with other data.

RD: Finally, stepping back, this has been a period where HM Treasury was forced to come up with large and innovative policies. Are there lessons for more normal times?

CL: This was a moment for bold and radical policy. But when you think about it, policy is quietly radical all the time. The scale of the Covid policies have been huge but measuring the importance of a policy should not be just about scale but also effectiveness. Whatever the area there is radical and exciting policy happening all the time—it is always important to build in creativity.

RD: So either on the grand scale—an economy-wide bailout—or something industry specific, policy is powerful, it changes the way the economy works...

CL: And that is why economics is exciting and important—it is why public policy matters. It is fascinating work, and the opportunity to play a part by providing advice on these issues is a privilege ●

Tackling inequality.

Longstanding economic fractures have been widened by the pandemic. Policy actions are needed across the income distribution and at all stages of the economic process.

/ Stefanie Stantcheva /



Economic and social inequalities take many forms: many have been widened by Covid-19. Across the income distribution, consumption, savings, job losses and the opportunities for remote work have evolved very differently. Across genders and between parents and those without children, the toll of school closures, lack of childcare and additional housework has been uneven. And across regions, sectors and occupations, the pandemic has brought vastly different burdens.

These challenges are daunting and need to be tackled at a variety of levels. Rather than thinking about policies in isolation—education or work or redistribution from higher to lower incomes—policies should be considered jointly. Redistribution is key but it needs to be combined with appropriate ‘pre-redistribution’—interventions to improve economic opportunities.

Such packages of policies are important not only for reducing inequality, but also for improving productivity. Without more equal access and opportunities, technologies and resources remain bottled up in a few companies and among a few ‘elite’ groups of employees, mainly in urban metropolitan areas, and do not trickle down to others. Workers left using old technology or limited by resource availability see their output hampered. Many are left behind.

A useful way to think of potential policy interventions is with a three-by-three matrix. On one side are the income groups mainly targeted by a policy: the bottom of the income distribution, the middle classes, and the very top.

On the other side are the three stages at which interventions can take place: pre-production policies, which shape the endowments that people bring to the labour market, and their opportunities; production policies, which influence firms’ decisions and how the labour market functions; and post-production policies, which are redistributive measures, such as government transfers and progressive taxation.

Many traditional welfare states in Europe rely heavily on the first and third columns of the matrix: on the one hand, fostering education and training to prepare people for the world of work; and on the other, progressive taxes and transfers, as well as social insurance against unemployment, illness or disability.

Production stage policies are not systematically geared towards reducing inequality and creating better jobs. There are some exceptions—the minimum wage, collective bargaining regulations and labour protection—but in general this stage targets market competition, physical investment and innovation, reflecting a traditional divide between ‘social policies’ that focus on inequality and economic policies to improve productivity.

But such traditional welfare systems are built on the assumption that (almost) everyone who wants a good job can find one. The pandemic has revealed the stark inequalities in the quality of jobs accessible to different groups.

It is not possible to define what a ‘good job’ is in the absolute, as it depends on local circumstances and people’s preferences (for example, for flexibility). Nevertheless, some clear criteria include safe and reasonable work conditions, sufficient pay that enables good living standards and access to benefits such as healthcare, childcare and pensions in the future, as well as adequate social insurance and some share of career opportunities and progress. These kinds of jobs have been disappearing.

In a world in which good jobs are becoming scarce due to longer-run trends such as technological change and globalisation—and where shocks such as Covid-19 deepen the cleavages—there is a need to act on all three columns in a coordinated and comprehensive way ●



Scan to read other ECO articles on inequality

		AT WHAT STAGE OF THE ECONOMY DOES POLICY INTERVENE?		
		Pre-production stage	Production stage	Post-production stage
WHICH INCOME SEGMENT DO WE CARE ABOUT?	Bottom incomes	Primary education & early-childhood programmes; vocational training	Minimum wage; apprenticeships; reduced social security contributions by firms; in-work benefits	Social transfers (housing, family, child benefits); guaranteed minimum income
	Middle incomes	Public higher education; adult retraining programmes	Cluster policies; SME support programmes; EU Structural and Investment Funds; occupational licensing; on-the-job training; collective bargaining & work councils; EU trade policies	Unemployment insurance; pensions
	Top incomes	Inheritance & estate taxes	R&D tax credits; EU competition policies	Top income tax rates; wealth taxes

Note: A full paper will be published in Economic Policy



Generation Covid.

The pandemic is proving costly for all youngsters: from kids in pre-school to secondary students preparing for college, university or their first job.

/ Cathy Farmer /

From toddlers to teens, youngsters' lives have been severely interrupted by the pandemic. Time out of school or high-quality childcare is likely to have negative effects on the development of skills and knowledge, potentially leading to weaker educational performance and longer-lasting damage to lifetime earnings and employment.

Young people's wellbeing and social skills can also take a hit as a result of reduced human interactions and the lack of sport and other extracurricular activities that schools offer. While all have suffered—in different ways depending on their age—the events of the past year have disproportionately affected children from already disadvantaged families, exacerbating inequalities.

EARLY YEARS

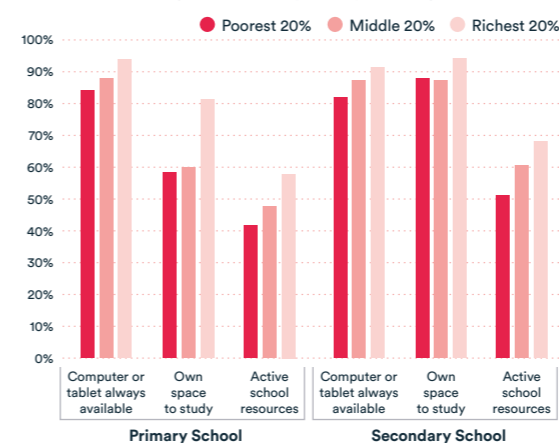
Before Covid-19, 1.4 million 0-4 year olds attended some kind of formal childcare each day—around 90% of 3-4 year olds and 40% of those aged 0-2. But when the first national lockdown started on 23 March 2020, one million of them stopped attending, leaving parents struggling to balance work with childcare responsibilities. Nurseries, playgroups and child-minders also faced financial uncertainty.

The children themselves have suffered from the loss of social and educational opportunities; evidence indicates that just one additional term of early years education has small, positive benefits. But this disruption will have had greater effects on children from poorer backgrounds, widening gaps in preparedness for primary school and educational attainment as they grow older.

Indeed, children from well-resourced families may experience no negative effects as their parents can spend more time with them and afford toys and books at home, all of which are associated with better academic outcomes. Lower-income families are far more likely to be reliant on public services, such as already stretched Sure Start community centres, which were vulnerable to lockdown measures.

Unequal access

Access to learning resources by family earnings



Source: Institute for Fiscal Studies

SCHOOL YEARS

Most school-age children in England were out of the classroom for 13 weeks in the first lockdown and an additional eight in early 2021. While lessons moved online, learning was still disrupted and rarely comparable to the education they would have received in person. This was particularly evident for the four fifths of children with limited access to technology or an appropriate space in which to study.

During the first lockdown, children spent on average four and a half hours a day on their education—a 25% reduction in learning time for primary school children and a 30% drop for secondary students. One study found Year 2 children to be around two months behind 2017 expectations for maths and reading.

But again, disadvantaged children have been more likely to fall behind than those from more affluent families. Before the pandemic, they were already estimated to be around 18 months behind their peers by the time of their GCSE exams (14-16 years old). Attainment gaps may have widened by between 11% and 75% within the first six months of the pandemic, with a central projection of 36%.

Varied access to resources and online learning provision has highlighted existing inequalities both on an individual and school level. For example, only 5% of state school teachers reported that all children had access to the internet during the first lockdown, compared with 51% of independent school teachers. Some poorer state schools were unable to offer any online learning.

Additionally, during the first lockdown, 15% of primary age children and 20% of secondary age children of the poorest third of families based on household income had no computer access compared with 5-10% of children in the richest families. Perhaps unsurprisingly, over half of those eligible for pupil premium funding were less engaged with remote learning than their classmates.

To close the gap, the government has funded the provision of laptops for disadvantaged pupils to support home learning. But the initial rollout did not meet demand and by mid-June 2020, only 21% of these pupils had been provided with technical support.

In December, the Department for Education announced that the government would invest over £300 million to support remote education and social care and get devices to a million children and young people. In addition, some internet providers have given free data allowances, but this hasn't always covered learning material hosted on external sources, such as YouTube.

Some children will need additional, targeted support. Those with special educational needs (SEN) have found the pandemic and home learning especially challenging. Fortunately, many children who have an Education, Health and Care Plan have continued to receive schooling, but this has not been universal.

Early support with learning and inclusion helps mitigate education performance gaps for SEN children. But during the lockdowns this has been difficult to maintain, particularly as many services have been restricted, as have additional education and therapeutic services and activities for children with autism, many of whom have found the loss of social contact over the past year hard to understand.

Overall, there has been little research into the impact of the pandemic on SEN children so far. As one mother described, they are the “forgotten families on the brink of collapse”. Similarly, parents of disabled children have felt both the psychological and financial pressures of lockdown as three quarters of respite and rehabilitation services have been largely withdrawn.

CATCHING UP

Schools will need evidenced-based approaches to help Generation Covid catch up. Crucially, once a child is behind, their parents’ ability to help replace lost learning is affected by their own levels of education, time and financial resources. Among higher educated parents, 70% are in the position to help their children with homework and establish an enriching home learning environment.

The government’s ‘levelling-up’ strategy in poorer regions is therefore more challenging than ever. Reductions in spending per pupil in the last decade will make it harder for schools to respond to inequalities.

Some proposals to boost pupils’ learning have already been suggested, including small group interventions run by teaching assistants, support for reading, both phonological and oral language skills and early support for foundation or reception classes. Secondary schools have adopted continuous teacher assessment to track pupils, but past research reveals teacher bias, especially the under-assessment of black and minority ethnic students. Assessment should be rigorously evidenced and made without the interference of parents.



PHYSICAL AND MENTAL HEALTH

There has been little research about the impact of Covid-19 on the health of children. But using previous research, it is possible to infer the impact of recessions on child health; for example, if children are economically disadvantaged and experience poor health, they are more likely to continue to have poor health in adulthood.

The effects of the past year may well have had a greater impact on children’s mental health and wellbeing. Lockdown and social distancing have meant they have been separated from friends and confined to their homes.

Research has compared those who were priorities for returning to in-person learning in June 2020 with those who were not and found a decline in emotional and social behaviour among those children who were away from school longer. The negative effects of school closures on child mental health are larger than the impact of lost learning and will take time to amend the harm done.

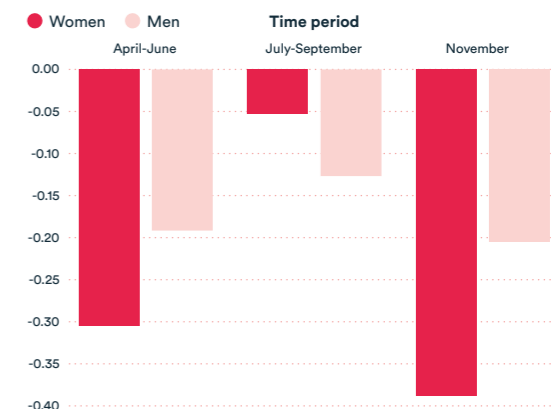
The pandemic has also damaged adolescent mental health and evidence shows it has continued to decline throughout the past year—particularly among girls and young women.



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Falling wellbeing

Change in mental health during pandemic/lockdowns, men and women aged 16-30



Source: Understanding Society survey

Along with lost learning, poor long-term mental health can also lead to economic consequences by lowering educational attainment. Parents have thus been advised to focus on their children’s wellbeing as much as learning. Similarly, there are proposals for schools to increase awareness by training teachers to spot the warning signs of depression.

This all paints a bleak picture for the generation of students progressing through school during the pandemic and emphasises the importance of well-funded policies to protect their learning and wellbeing ●

Protecting tomorrow.

People’s job prospects are damaged by recessions, the young especially so. Government policy will need to hit three vital targets to limit the ‘scarring’ effect of the pandemic.

/ Paul Gregg / Emma Tominey /

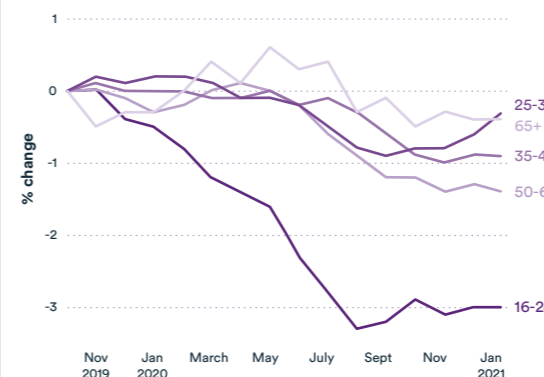


Age has played a major role in the pandemic. For the young, the medical burden has been comparatively light: mortality rates of younger people peaked at around 1.3 per 100,000, compared with 56 per 100,000 for the over 60s. Yet when it comes to jobs and pay,

the toll has been heavier: those aged 16-24 have seen greater falls in employment levels than other groups, with fully 110,000 more young people out of work compared with last year.

Jobs vanish

Relative change in employment rate (percentage points) in the UK, compared to pre-pandemic levels (October 2019), by age



Source: ONS

Young people face an incredibly tough entry to the world of work. Vacancies have fallen by 22.7% compared with March 2020. The claimant count, which includes those receiving Jobseeker’s Allowance and Universal Credit, increased 117% in the year to February 2021. Young people seeking work face a simple, brutal challenge—jobs are scarce.

This kind of experience can leave a ‘scar’, evidence from previous recessions shows. Faced with fewer job opportunities, young people are at risk of long-term damage from the pandemic. Spells of unemployment mean that young people are missing crucial work experience that can lead to promotion and career advancement. The result could be lower future wages, unstable employment, poor mental health and even reduced life expectancy. In many ways, being on furlough is likely to have similar effects.

To protect the young from this bleak outlook, policies should hit three key targets.

THREE STEPS TO A BRIGHTER FUTURE: EDUCATION, EXPERIENCE AND EMPLOYMENT

Policies should boost the incentive to stay in education. This could be full-time study or starting new apprenticeships. Funding matters here. The UK government is already allowing students to declare whether their family income has been substantially reduced (in England, by more than 15%) and apply for higher maintenance loans for university. A bolder step would be to reinstate maintenance grants for those from low-income families to encourage further education—a £1,000 grant increases enrolment by four percentage points, research suggests.

The second target would be to bolster work experience and training. The aim should be to build skills and smooth the transition into full-time work. For example, the UK’s 2009 Future Jobs Fund offered six months paid work experience to 18-24 year old Jobseeker’s Allowance claimants. Two years after starting the programme, participants were 11 percentage points more likely to be in employment. The reduced time on benefits means the programme costs were broadly offset. The government has created a similar scheme—the Kickstart Programme. Ultimately this will be effective only if the young workers are offered a paid contract once their placement ends.

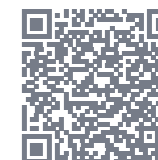
This is where the third target—policies that boost employer demand—comes in. The government has announced that firms hiring apprentices will receive an additional £2,000 for hiring someone under the age of 25. This is a step in the right direction, but further support is needed. These programmes are often expensive, and an employers’ survey suggests apprenticeships fell by 32% during the pandemic compared to previous years.

History offers examples of creative policies that boosted the employability of young people and gave firms incentives to hire them. These include the 1998 New Deal for Young People, which combined incentives for employers, in the form of a subsidy for employing an eligible young person, with individually targeted job-seeking support for young people through a personal advisor. The policy helped raise youth employment by around 5%.

Changes to taxation can help too. One option would be to cut employers’ National Insurance (NI) payments for lower-waged jobs. This would help young people (as they are lower paid) and the hardest hit sectors (which are generally low-wage). This could be done by raising the earnings threshold at which employers start to pay NI by £5,000 (it is currently set at £8,844 per year) for the next two or three years. Alternatively, there could be employer NI reductions targeted at young people specifically.

Reducing the minimum wage for young people is another option. In the UK, the standard minimum wage (the National Living Wage, for those over 25) is £8.72 per hour, but there are lower wages for the young: £4.55 for 16-17 year olds, £6.45 for 18-20 year olds and £8.20 for 21-24 year olds. The government has postponed proposals to move the older among these young people onto the full adult rate.

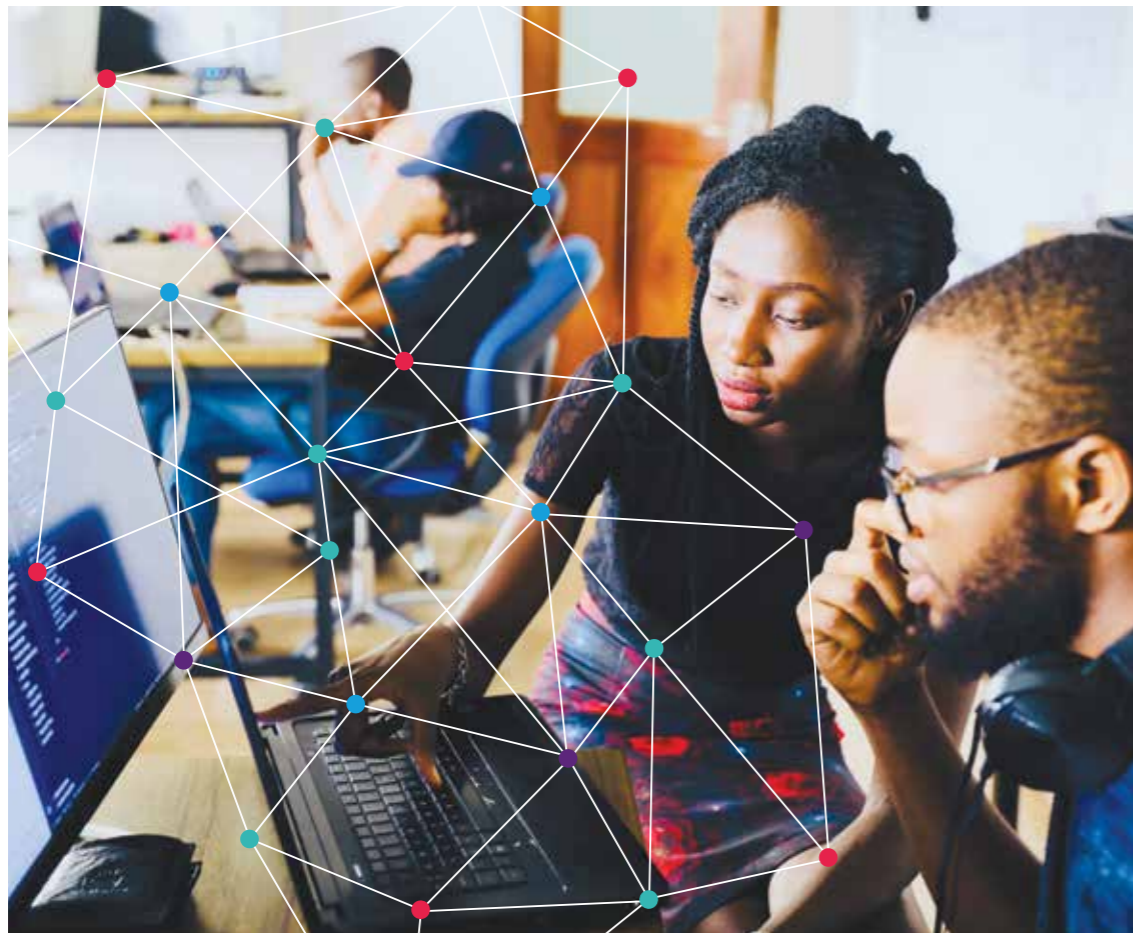
A final investment—important across all three types of policy—is in data. Many young people are not in employment but are also not claiming government benefits or doing so only sporadically. Many of these are disadvantaged and are currently not a government priority. Tracking them, and helping them in the three ways set out here, is vital.



SOFT SKILLS, BETTER JOBS.

People in low-wage jobs have fewer opportunities for training and limited pay progression. This can be improved by developing soft skills.

/ Richard Blundell /

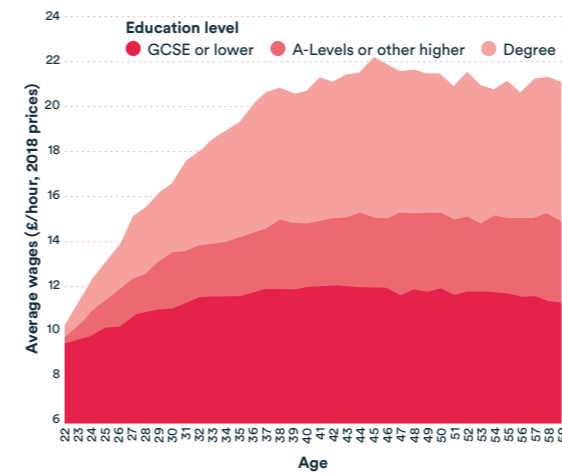


Low-earning workers around the world have seen minimal increases on their pay slips in recent decades. In the UK, although employment rates were relatively high pre-Covid, work alone was not enough to keep many families out of poverty. In 2019-20, 14.5 million

people in the UK, or 22% of the population, were in relative poverty after housing costs, which means that they were living in households with income below 60% of the median.

What pay rise?

Age profiles of average wages in the UK by level of education



Source: UK Household Longitudinal Study, Institute for Fiscal Studies calculations

An individual's wages and prospects for earnings growth are affected by, among other things, their education level and whether they work full- or part-time. For example, lower educated workers face increasingly poor pay progression, low rates of training, shorter job tenures and a higher risk of outsourcing. Good jobs have the opposite attributes: favourable long-term prospects including opportunities for training, pay progression, generous benefits and promotion.

While women's employment and hourly wages have risen, this trend has not been enough to reverse the rise in family earnings inequality. Lower earning women tend to marry or cohabit with lower earning men and vice-versa. Women, especially lower educated women, are also more likely to work in part-time jobs which has been shown to further reduce the chances of wage progression. Poor opportunities for good jobs are a feature of the labour market for both lower educated men and women.

Earnings inequality has risen further during the pandemic as low-income sectors are more likely to have been affected by lockdowns and the growth of online shopping. Younger generations have taken a hit as their education was disrupted and have fewer job opportunities than prior to the pandemic. Access to training and apprenticeships has fallen dramatically too.

Despite this overall gloomy picture, there are pockets of light. Workers can still benefit from training. Here the specific skills gained matter, as does the type of firm to which the worker is matched. These factors may be the key to reversing poor job prospects, particularly for those who do less well in, or are poorly served by, the formal education system.

Improved access to and quality of official employee-employer data mean that we are increasingly able to study the wage growth—or lack of it—for individual workers across substantial parts of their career. Research using these new data linkages shows that, for the lower educated, working in occupations that require soft skills delivers improved progression, with more training, longer tenures and less outsourcing risk compared with those without. This is especially true where the worker is employed in an R&D firm and/or a firm with a large share of higher-educated workers.

Tasks that involve soft skills are quite broadly defined and include:

- Problem sensitivity — the ability to tell when something is wrong or likely to go wrong;
- Coordination — being able to adjust your actions in response to others;
- Taking responsibility for outcomes of other workers;
- Working in groups or teams; and
- Consequence of error — understanding where your mistakes have big spillovers on others.

This is not to say that numeracy and literacy skills don't matter, far from it. Rather, the evidence points to another set of skills which are important for wage progression, especially for low-educated workers.

GOOD POLICIES, GOOD JOBS

How can this research help us design policies that generate good jobs? First, there are policies that exploit complementarities. For example, encouraging investment in artificial intelligence that helps integrate lower-educated workers in productive work, or redressing geographical concentrations of low-educated workers. Enhancements in the UK's digital infrastructure will facilitate people's efforts to upgrade their skills in the post-pandemic economy and to engage in society more generally.

Then there are policies that develop synergies. This could include subsidising firm-based qualification training with a component of nationally accredited training in soft skills. Local employers in sectors with good growth prospects could naturally contribute by identifying key complementarities.

To be effective, these steps need to be part of a broader suite of policies. An enhanced Universal Credit system alongside a generous minimum wage to boost low earnings will play an important part. There is also a need for regulatory change to line up benefit eligibility and tax treatment for the self-employed.

The need for a radical suite of targeted policies has been made more urgent by the pandemic. Perhaps the crisis will bring a new emphasis on building a fairer society. To do so, low-earning workers will need support and training that focuses on the demands of the post-Covid economy, of which accredited soft skills will be a key component ●

COMPETITION OR COOPERATION?

Vaccine nationalism is driving countries to compete for doses. It is a race that could be self-defeating.

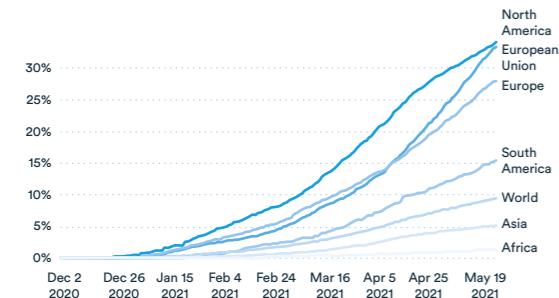
/ Flavio Toxvaerd / Tony Yates /

Until vaccines against Covid-19 became available, governments around the world relied entirely on policies that limit social interaction to control the pandemic. As a result, vaccination has been seen as a panacea, allowing restrictions to lift, businesses to reopen and social lives to resume.

The first effective vaccine was developed by Pfizer-BioNTech in its Mainz lab in Germany in late 2020. Vaccines by Oxford-AstraZeneca, Moderna and Janssen (Johnson & Johnson) soon followed. The first dose in the UK was given on 8 December 2020 and since then, the rollout has gathered pace in many rich countries. By 1 May 2021, 259 million people had received at least one dose of the vaccine across the G7. But vaccine availability has been limited and jabs have been given at a far slower rate in poorer countries.

Vaccination race

Share of total population who received at least one dose of the Covid-19 vaccine



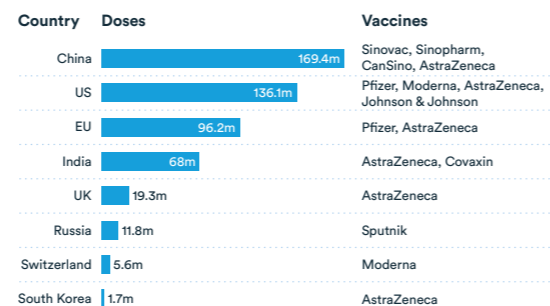
Source: Our World in Data

The striking differences in vaccination rates have triggered angry confrontations between countries. By March 2021, the UK had delivered a first vaccine dose to over 30% of its adult population, compared with only 5% in the European Union. This led to clashes between the UK and the EU over whether doses ordered by the UK government should be allowed to leave European ports.

In addition, tensions have emerged between rich countries that control the vaccine production process and lower- and middle-income countries that feel left behind. Just a handful of countries control the production of 73% of vaccines currently available.

The producers

Vaccine production by country (as of March 2021)



Source: Airfinity, Axios

So-called ‘vaccine nationalism’, through which a country prioritises its own access to vaccine doses over others—by forming partnerships with pharmaceutical companies, imposing export bans or signing exclusionary contracts—are not new. Similar tensions emerged during the 2009 swine flu pandemic when the United States negotiated pre-production contracts to secure all domestically produced doses. But the scale of the current crisis has brought these policies to the fore.

Economics can help us to understand vaccine nationalism and the strategic decisions that national governments are currently faced with. Two key concepts—‘pre-emption games’ and ‘exclusionary contracts’—help.



To set the stage, consider the problem faced by governments that wish to acquire vaccines to protect their populations. Each government must first decide which companies to back. It would be impractical and prohibitively costly to pursue all options so they must prioritise based on viability, safety and on reliable production and distribution.

Vaccines are often made at different sites to the R&D labs that come up with the vaccines. Production is carried out by a small number of large pharmaceutical firms, and these may already be working at full capacity. So governments are in competition with each other to secure an ample supply of vaccines.

This type of situation is known as a ‘pre-emption game’: governments fear being beaten in the vaccine race, and so abandon the ideal vaccine development plan in favour of a more strategic one. Early in the pandemic governments clearly saw themselves as players in this type of game. The UK Public Accounts Committee wrote in December 2020 that:

“Extremely high global demand, coupled with the scarcity of vaccine resources, has put added pressure on government to make fast-paced decisions to secure access to potential vaccines, and to quickly build the capacity to manufacture and deploy them”.

The emerging competition for vaccine capacity was also recognised by the European Commission, which warned that “countries rushing individually to secure supplies would raise the price for everyone and leave some countries without”. This reasoning was used to justify the EU’s common purchasing agreement which joined all 27 member states in a collective vaccine procurement scheme to guarantee equitable access and secure a lower price.

While a government in this game may benefit from pre-empting its ‘competitors’, it also has an incentive to keep hold of any advantage of being first. As a result, governments may implement policies to restrict others’ access to domestically produced vaccines. These can range from outright export bans, such as that recently implemented by India, to exclusionary contracts which restrict other governments’ ability to procure vaccines from domestic firms. The US government’s use of wartime legislation (the Defense Production Act) to boost domestic supply of vaccines and equipment, including needles and syringes, has limited the ability of other countries to import these items. While competition authorities generally try to limit the use of such contracts between companies, national governments are exempt from these rules.

Again, there is little doubt that governments are aware of the effects of such agreements and contracts on third parties. Discussing the UK’s vaccine procurement process, one official stated that:

“Protecting the UK’s supply was a central objective... there is absolutely no way that AstraZeneca would have been able to enter a contract which gave away equal priority of access to the UK doses”.

Pre-emption using exclusionary contacts can be costly. One problem is fairness: it leaves poorer countries without access to life-saving vaccines. In Africa for example, less than 1.4% of the population have received at least one dose, compared to 54.5% in the UK. By early April, less than 2% of the 690 million doses administered globally were in Africa. Vaccine nationalism can also hurt at home, shouldering rich nations with the financial and administrative burden of buying doses alone. Clubbing together can deliver a better deal.

Not only this, but in an interconnected world, the pandemic remains a risk until it is under control in every country. Vaccines do not guarantee immunity and protection may wane over time. High case numbers in poorer countries may lead to the emergence of new strains, which could undermine the hard-won gains that months of lockdown and millions of jabs have delivered in wealthy nations.

Competition is most often a good thing. But this is one example of where being strategic can hurt. To avoid the pitfalls of vaccine nationalism, policymakers can commit to multilateral agreements that limit rivalry between countries. While vaccine nationalism may seem an attractive option at first glance, working together to ensure doses are delivered across the globe is the only way to end the pandemic.



City exodus?

The future of big cities is in question. Will Covid-19 trigger the end of expensive, commuter-driven conurbations or will urban centres remain resilient?

/ Henry Overman / Max Nathan /



Big cities thrive because of the economic and social benefits of proximity. This explains why, despite taking up only 9% of land, in 2016 British cities accounted for 55% of businesses, 60% of jobs and 62% of output. Yet proximity also helps to spread Covid-19, and has been impossible over the past year due to lockdowns and social distancing. How might the long-lasting impacts of the pandemic affect big cities? To answer this question, we need to understand the effects of working from home on productivity and innovation; how housing markets, local services and city centres may evolve; and whether big cities are now seen as riskier places.

WORKING FROM HOME: PRODUCTIVITY AND INNOVATION

Over 43% of UK jobs could be done remotely, task-based analysis of employment suggests. Yet before Covid-19, only 27% of workers had ever worked at home and just 5% did so regularly. This gap has now closed. One survey suggests that regular remote working increased to over 40% in January 2021. In big cities with lots of office workers, that shift will be even larger. Even if working from home is feasible, that does not necessarily make it more productive. In the same survey, 29% initially reported higher output during lockdown, but 30% reported that it had fallen.

Employees are eager to work at home, surveys suggest. In the coming months, many big employers will be shifting to mixed models of home and office work. Keeping some office time makes sense: studies show that face-to-face interaction is valuable. Co-located workers can learn from each other, developing and testing new ideas.

These benefits extend beyond the office. Dense urban areas seem to be especially good at generating new and unconventional ideas. Inventors moving into clusters increase both their patent counts and citations. Even as new technologies diffuse, the local hubs that generate them hold onto disproportionate shares of employment in those technologies, particularly for higher-skilled jobs.

The innovation benefits of proximity drive urban economies and are important for growth across the country. So even if shifting to mixed working makes individual firms more productive—which remains to be seen—we risk losing some of the collective benefits of between-firm and between-worker interactions.

The fact that higher-paid jobs are more amenable to remote working will exacerbate these effects. In big cities, falls in demand could ease pressure on prices. But unfortunately, overall affordability is unlikely to improve—as remote working may increase the overall demand for space at home.

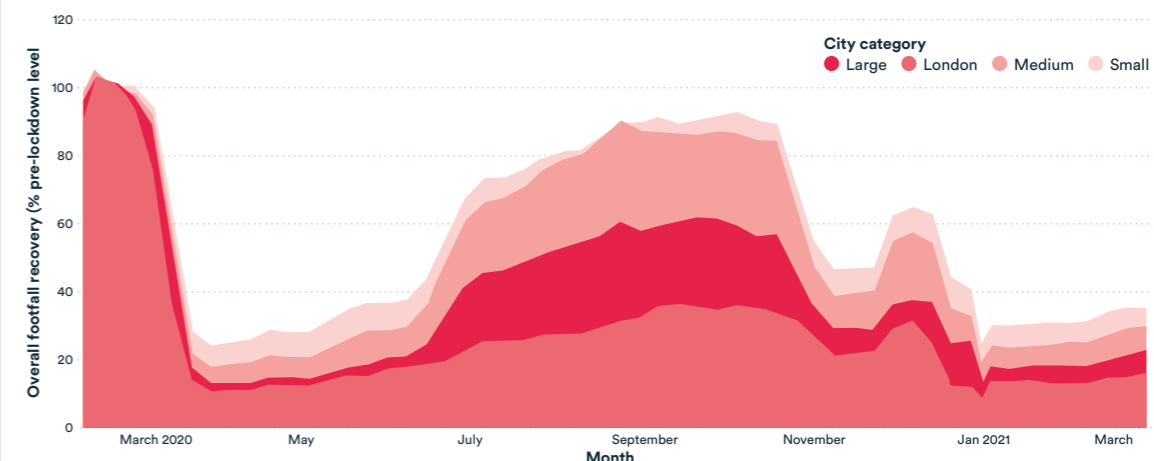
Wealthy households moving to the suburbs could raise demand for high-end shops, restaurants and gyms in those areas. This could end up increasing commuting for workers providing these services but unable to live nearby.

A critical question is whether there will be one-for-one shifts of activity from central city locations to suburbs. This will depend on the extent to which households substitute home production, local or online purchases for the services they used to consume while at work.

Lockdown has seen many families switch from physical retail to online shopping, and these effects might persist. Offsetting this is reduced expenditure on commuting and office clothing. But against that, there is higher spending on office equipment and energy at home.

Stepping away

Footfall recovery by city size



Source: Centre for Cities High Street Recovery Tracker

HOUSES AND SHOPS – RESTAURANTS AND GYMS

In the UK, housing shortages and unresponsive housing supply make large internal migration unfeasible. Instead, any significant drop in the demand for housing in big cities will lead to higher prices in more desirable non-urban locations. These price effects will reinforce existing patterns of segregation, as wealthier city households move out.

Big cities have gone through long phases of growth and decline in the past. Recently, reduction in transaction costs—due to better technology and cheaper travel—have been associated with faster big city growth. The pandemic's likely impacts are unclear. So far, a shift within the economic geography of big cities, with suburbs benefitting at the expense of city centres, seems plausible.

The longer-term prospects for big cities remain uncertain. At one extreme, there may be no significant long-term changes: big cities will bounce back, with a return to old norms. At the other end of the spectrum, there may be radical changes to ways of working and living, and to the UK's economic geography. If so, there will be impacts for business and families across the country.

WFH OR BACK TO THE OFFICE?

Remote working has increased during the pandemic. Economic data and perceptions of productivity suggest this new way of working may not last.

/ Jonathan Haskel /



Headlines talk of a revolution in working practices: around 40% of working adults are currently toiling away from home studies (or kitchen tables) rather than their offices. This can give the impression that the days of office work are over for some of us. But the switch to working from home has not been universal, and there are questions over how long it will last.

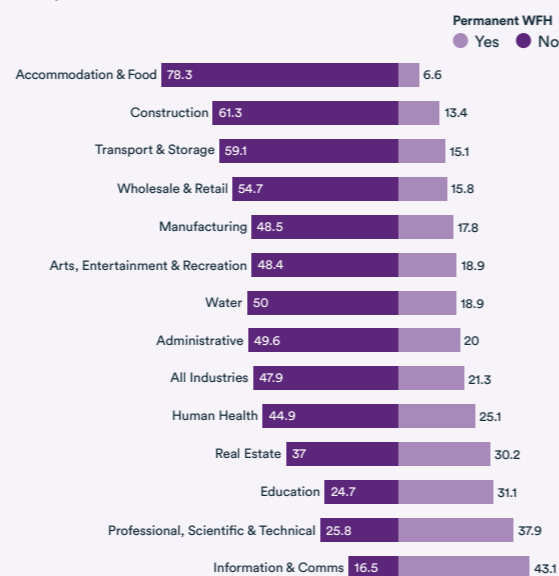
The proportion of remote workers is highest in the information technology and communication (70%) and finance and insurance (67%) sectors. Working from home is less likely in retail (30% of staff), transport (25%) or accommodation and food (12%). Much of this is due to the nature of these jobs: it is impossible to run a shop, drive a bus, or serve in a café using WiFi and Zoom alone.

Unsurprisingly shops, restaurants and hotels are also far less likely to support their staff working from home on a permanent basis. Firms' perceptions of their employees' productivity when working remotely also play an important role in whether they support remote working.

Bosses are less likely to value home-working when productivity is seen to have decreased during the pandemic. This is in fact the case for firms in all industries, except for one. Perhaps intuitively, IT and communication firms were alone in reporting that the output per hour of their staff has increased during the pandemic, albeit minimally.

See you at work

Percentage of firms intending to use increased home-working as a permanent business model



Source: ONS Business Insights and Conditions Survey data

In line with these economic data, surveys of firms show their plans to allow continued working from home aren't particularly strong. As restrictions are lifted, it is likely that there will be some drop in remote working from current levels, but an overall increase relative to pre-Covid. The new post-Covid ways of working look likely to be concentrated in a few industries rather than common across all types of work: in person haircuts, MOT tests and restaurant meals aren't going anywhere fast ●



Hard hit.

Covid-19 has changed many lives, but ethnic minorities and women, especially lone mothers, have been particularly affected.

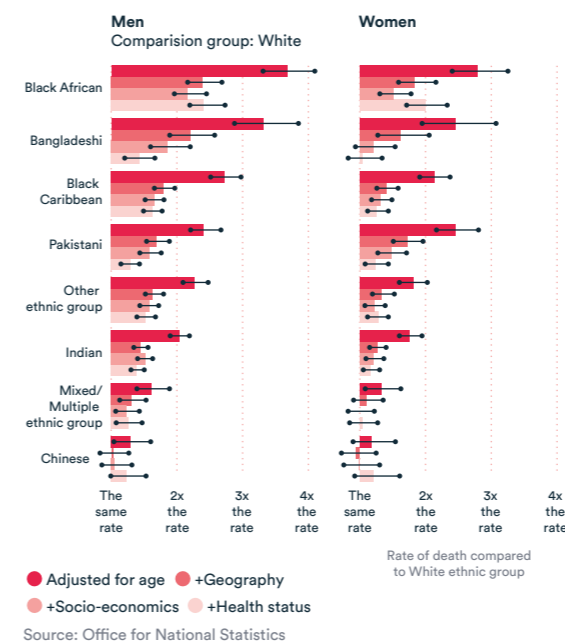
/ Emilia Del Bono /

In addition to the elderly and the young, the effects of the crisis have fallen disproportionately on women, ethnic minorities and those already vulnerable or in poverty.

Many in these groups face a greater risk of infection: less educated and ethnic minority workers are more likely to be in jobs where working from home is more difficult or risk of exposure is higher. Indeed, 19% of key workers in health and social care are ethnic minorities. In the pandemic's first wave, people from Bangladeshi backgrounds were around twice as likely to die from Covid-19 as their white British counterparts; and other minority groups had a 10-50% higher risk of death.

Ethnicity matters

Rate of death involving Covid-19 by ethnic group and sex relative to the White population, England, 2 March to 28 July 2020

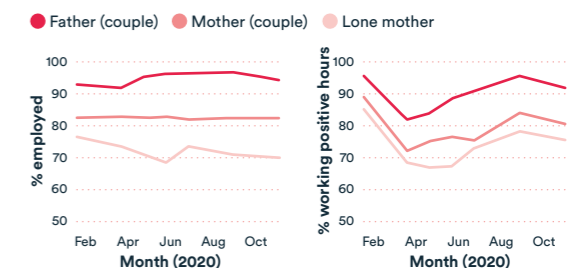


Prior health conditions matter. There is a higher prevalence of heart disease, liver disease and diabetes among low-income groups, some minority ethnic groups and in more deprived parts of the country. Indeed, most of the increased risk of infection and death among ethnic minorities has been attributed to pre-existing health conditions, occupation and where and how people live—for example, living in overcrowded housing conditions, where it is much harder to stick to social distancing rules.

The pandemic has also highlighted gender differences in employment and working patterns. Previous recessions have had larger negative impacts on men's employment, but emerging evidence on the Covid-19 downturn indicates that women have suffered more. In part, this is because lockdown and social distancing measures have had a greater impact on sectors with a higher share of women's employment—women accounted for 60% of job losses in hospitality and retail in 2020.

Parental burden

Changes in employment and share in positive working hours



School closures have increased childcare needs and mothers have taken on more of this burden. Mothers, and lone parents especially, have been far more likely to reduce their working hours, take unpaid leave or withdraw from paid work entirely during the pandemic. While some of these changes may have been short term—for example, while schools were closed—they could still have lasting negative effects on women's future job prospects and earnings ●

Launching ECO.

/ Romesh Vaitilingam /

The seed of an idea that grew into the Economics Observatory (ECO) was first planted and nurtured in a series of conversations in late March last year. In the wake of the pandemic, lockdown and what already looked likely to be the deepest recession in living memory, there was a growing sense that the UK's economic research community should come together to answer questions from policymakers and the public about the economics of the coronavirus crisis and recovery.

With funding from the Economic and Social Research Council (ESRC) and hosting for the pilot stage by the Institute for Fiscal Studies (IFS), we were able to mobilise the expertise of economists from a wide range of universities and research institutions. At launch just a couple of months later, on 1 June 2020, we published 40 Q&A articles on the website, a number that has since grown to well over 300 in our first year of operation.

Many of the topics we addressed initially were focused on the immediate crisis: what damage would lockdown and recession cause to people's physical and mental health? How would children and parents cope with school closures? Which firms and industries were being hit hardest? How did the government's job furlough scheme work? What was being done to protect the most vulnerable? And how might we end up paying for these big public policy interventions?

But we also wanted to explore some long-term challenges raised by the pandemic, the recession and their aftermath: what will happen to big cities if there is a more permanent move to working from home? How can we make up the learning losses suffered by a generation of children? And which policies might be most effective in tackling the high, and highly unequal, impact of the crisis on businesses, jobs, incomes and mental health.

Many people and organisations have contributed to ECO's growth, not least ESRC and the University of Bristol, which is now hosting our hub. But I would particularly like to thank Rachel Griffith (IFS, Manchester and most recent past president of the Royal Economic Society), whose dynamism, scholarship and commitment to communicating economics made such a key contribution to our early development. Rachel and our whole team of lead editors remain deeply involved as we move to the next stage, continuing our work on the crisis and its aftermath, but also addressing questions about other big challenges, including devolution, digital technology, food insecurity and climate change.

CONTRIBUTORS

Lena Anayi / Bank of England

Tim Besley / London School of Economics

Esmond Birnie / Ulster University

Nicholas Bloom / Stanford University

Richard Blundell / University College London

Mike Brock / University of East Anglia

Graham Brownlow / Queen's University Belfast

Philip Bunn / Bank of England

Jagjit Chadha / National Institute of Economic and Social Research

Scarlet Chen / Stanford University

Melanie Cockroft / NHS

Diane Coyle / University of Cambridge

Dénes Csala / Economics Observatory

Richard Davies / University of Bristol

Emila Del Bono / University of Essex

Huw Dixon / Cardiff University

Jacqueline Doremus / California Polytechnic State University

Cathy Farmer / journalist

Armine Ghazaryan / University of Southampton

Corrado Giuliatti / University of Southampton

Paul Gregg / University of Bath

Rachel Griffith / University of Manchester

Jonathan Haskel / Imperial College London

Guto Ifan / Cardiff University

Hande Küçük / National Institute of Economic and Social Research

Liqing Li / California State University, Fullerton

Clare Lombardelli / HM Treasury

Stuart McIntyre / University of Strathclyde

Michael McMahon / University of Oxford

Charlie Meyrick / Economics Observatory

Paul Mizen / University of Nottingham

Ben Moll / London School of Economics

Max Nathan / University College London

Myrto Oikonomou / University of Oxford

Henry Overman / London School of Economics

Carol Propper / Imperial College London

Natalie Rickard / London Business School

Jesús Rodríguez / Cardiff University

Graeme Roy / University of Glasgow

Helen Simpson / University of Bristol

Cian Sion / Cardiff University

Pawel Smietanka / Bank of England

Sarah Smith / University of Bristol

Stefanie Stantcheva / Harvard University

Gregory Thwaites / University of Nottingham

Emma Tominey / University of York

Flavio Toxvaerd / University of Cambridge

John Turner / Queen's University Belfast

Romesh Vaitilingam / Economics Observatory

Jackline Wahba / University of Southampton

Tony Yates / independent economist

