

# COVID IN 10 CHARTS

# 2021

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## INCOMING: SHARP DROPS AHEAD

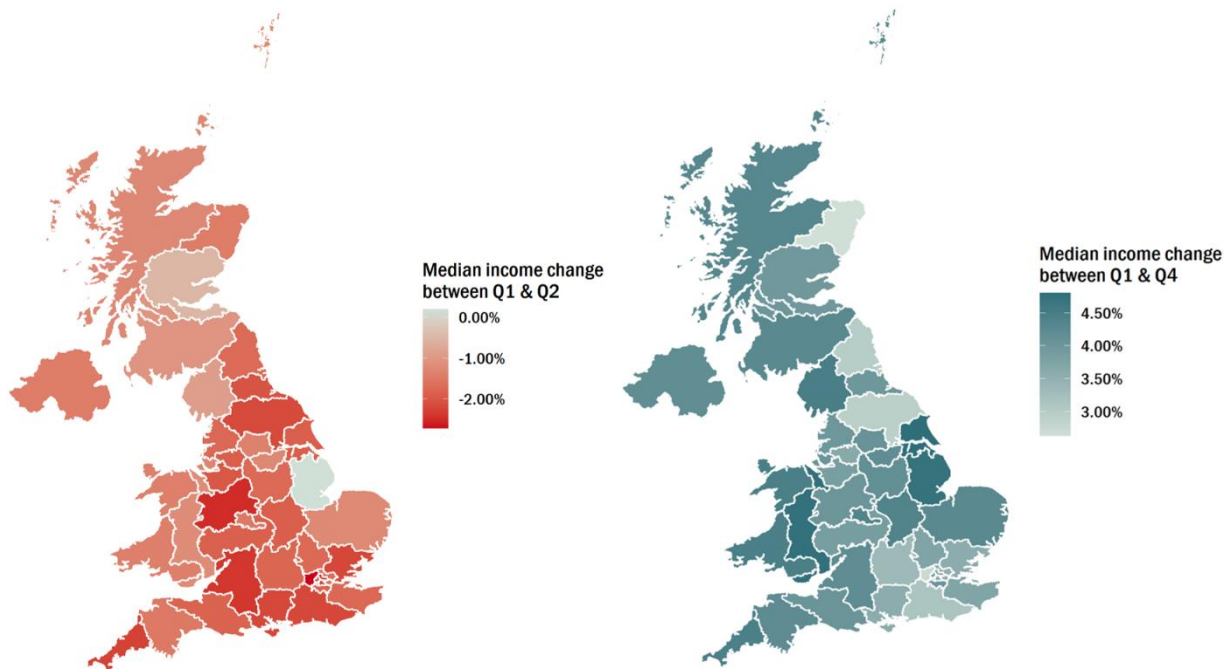
**Median incomes have recovered, but probably because of government support.** Incomes fell sharply across the UK during the first lockdown. The maps in Figure 1 show how different regions were impacted. In the second quarter of 2020, the most affected regions were the Northwest and Outer London - West. However, the shock had largely dissipated by the end of 2020, with median incomes back above their first-quarter levels even in those regions which had suffered the sharpest falls.

## EXEC SUMMARY

COVID-19 has plunged the economy into a recession unlike any other. The pandemic has been more akin to a natural disaster in its impact - a large exogenous shock putting many industries artificially on hold. But natural disasters are circumscribed in time and space. The impacts of the pandemic, by contrast has spread more widely and will linger for longer.

In the United Kingdom, as in many countries, some industries have adapted to the 'new normal' better than others; consciously or not, people have lived differently. Government support has been vital to making sure that the temporary hold placed on economic activity doesn't push people into destitution. In this bulletin, we illustrate some of the many impacts COVID-19 has had on the UK, ranging from housing and holidays to employment and energy generation.

**FIGURE 1 CHANGES IN MEDIAN INCOME**



Source: Frontier analysis of earnings and employment from Pay As You Earn Real Time Information, UK: January 2021

Note: We calculate quarterly median income as the sum of the monthly median income within the quarter. So Q1 comprises the months January, February and March. The seasonally adjusted data used for these maps come from HMRC's Pay As You Earn (PAYE) Real Time Information (RTI) system. These data cover the entire population, not a sample, and are considered experimental statistics as the methodologies for data collection are still being tested. The data only cover employees on payroll and do not include self-employment income or sources of revenue such as pensions, rental income and returns on investments. Employees who are furloughed as a part of the Coronavirus Job Retention Scheme (CJRS) have their payments reported through this system and are counted in the employment and payment statistics presented here.

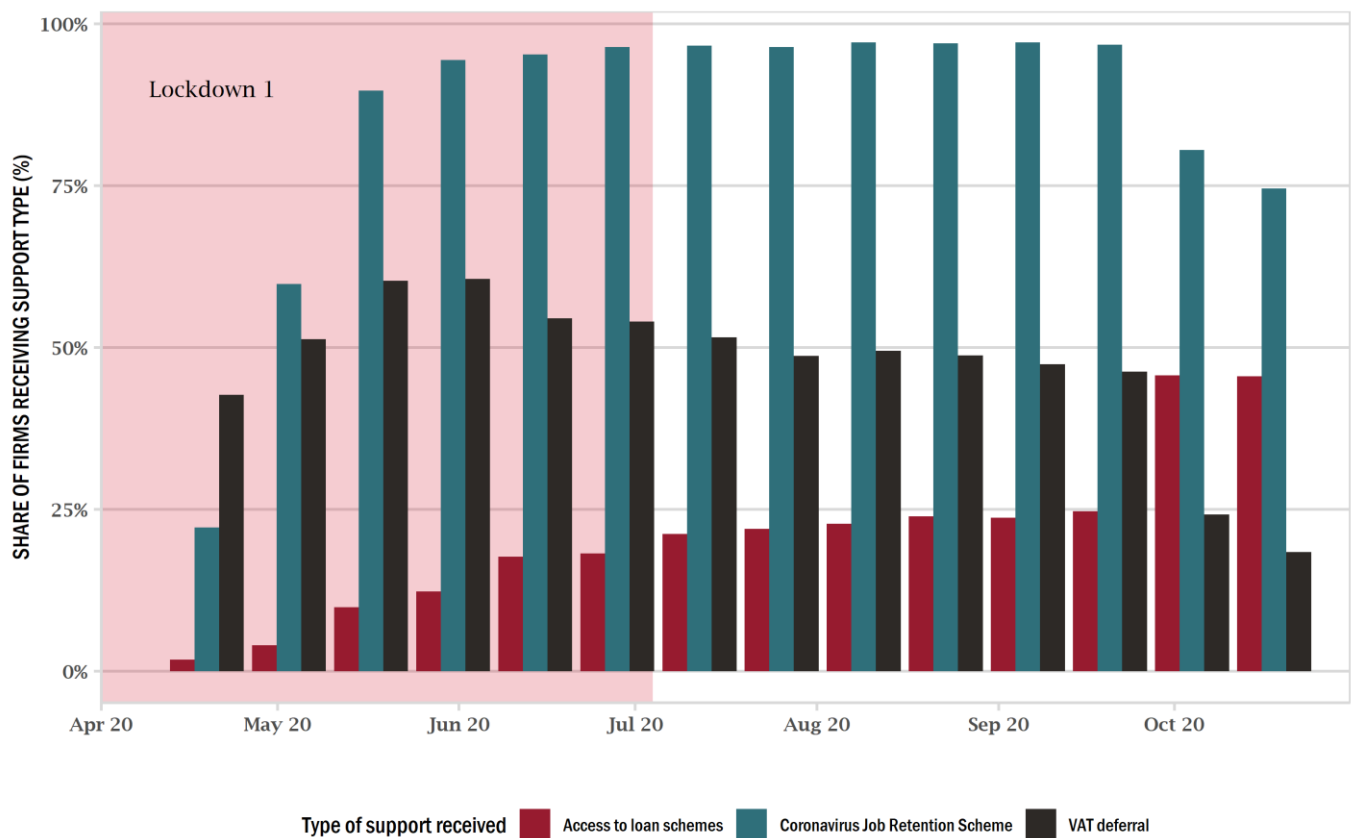
The first lockdown did not start until the end of March, making the first quarter a good representation of pre-COVID economic conditions. The income data cover monthly pay to people on employer payrolls, including those who were furloughed under the Coronavirus Jobs Retention Scheme (CJRS). They do not cover self-employment income or sources of revenue such as pensions, rental income and returns on investment. The monthly pay data that we use to calculate quarterly income include payments through the CJRS, so the bounce back observed includes payments to furloughed workers. These maps also reflect businesses adjusting to the changed business environment as the pandemic raged on.

## GOVERNMENT SUPPORT: ALL IN

**Government support has been unprecedented**, with over 90% of businesses surveyed reporting receiving some sort of government aid between April and September 2020.

As shown in Figure 2, the portfolio of policies unleashed by the government to help people and businesses were taken up widely – almost all firms reported making use of the CJRS between June and September. We present three of the more popular support schemes.

**FIGURE 2 GOVERNMENT SUPPORT TO BUSINESSES**



Source: Frontier Economics analysis of ONS BICS data (waves 3-23)

Note: All outputs seen at a two-week delay. Thus the impact of a policy such as Eat out to help out would be seen in September rather than August.

Although the government has provided huge amounts of support for businesses and working people, its safety net is not perfect. For instance, the Institute for Fiscal Studies [notes](#) that important groups like self-employed workers are not eligible for the [Self-Employment Income Support Scheme](#). Separately, the adverse impact that the year of lost schooling might have on children’s education and well-being is just beginning to be [understood](#). Even schemes like Eat Out to Help Out, intended to stimulate the economy, ended up doing more harm than good, according to some [early evidence](#).

## BUSINESSES: THE THREE-SPEED ECONOMY

The economy slowed down at three different speeds depending on the impact of COVID. We clustered sectors based on business survival, turnover and furloughing since April 2020. Three stories emerge about how different segments of the economy were affected by, and in some cases recovered from, the pandemic:

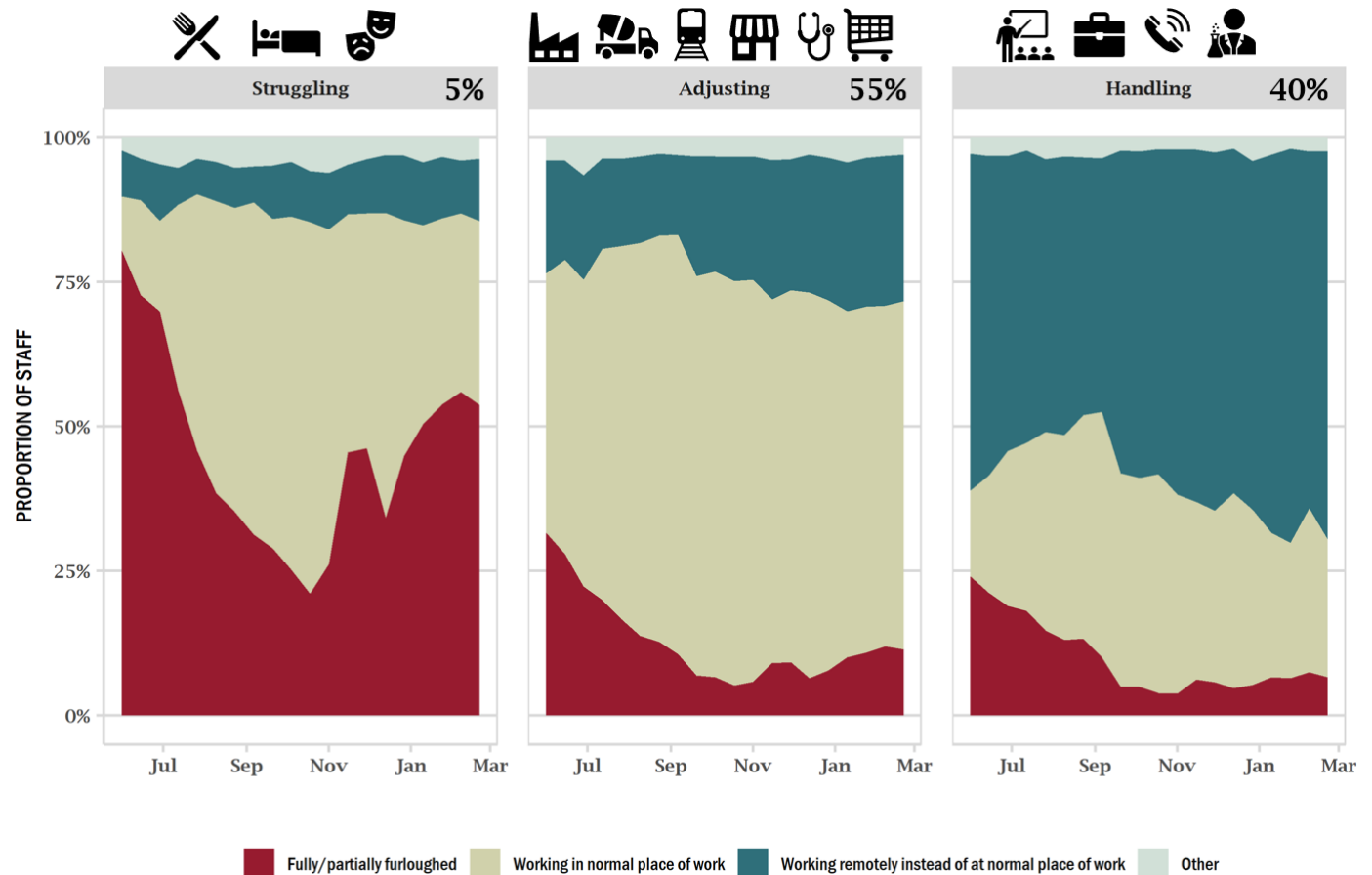
- A small set of sectors (5%) are **struggling**: e.g. the food and arts industries, where businesses simply cannot operate under tighter social restrictions, resulting in high use of the furlough scheme and significantly reduced turnover.
- More than half (55%) are **adjusting**: e.g. manufacturing and construction, which were forced to shut down at the beginning of the pandemic but have since largely returned to business as usual – even

as social restrictions have been tightened. Note that retail, healthcare and social care are also in this cluster.

- The rest (40%) are **handling** the pandemic: e.g. professional services and IT industries, which could rapidly switch to remote working. This means fewer of their staff had to be furloughed, so the impact on their turnover was less drastic.

One of the government’s main support pillars is the furlough scheme, officially known as the Coronavirus Jobs Retention Scheme (CJRS). Figure 3 shows that in those sectors in the “struggling” cluster (Arts, Entertainment and Recreation, and Accommodation and Food Services), around half of staff were furloughed as recently as January 2021. The proportion of staff working in their normal places of work roughly reflects the stringency of lockdowns in the UK. In the “adjusting” and “handling” clusters, furlough has been used much less. Those in the “adjusting” cluster have had to be in their normal places of work a lot more often. These sectors (including healthcare and social care, retail and wholesale, transport) have been essential to helping people cope with the pandemic.

**FIGURE 3 FURLOUGH IN THE THREE CLUSTERS**



Source: Frontier Economics analysis of ONS data from the Business Impact of Coronavirus Survey (BICS) (waves 2-23). This chart is based on analysis presented in a forthcoming Frontier bulletin written by Jed Fletcher and Joscha Krug.

Note: Cluster averages calculated as the average over sector responses, weighted by 2018 Gross Value Added (GVA). Proportion of staff working remotely available only from May 2020. Based on our clusters, 5% of businesses are “struggling”. 55% are “adjusting” and 40% are “handling” the pandemic. Shares are based on GVA in 2018. Figures have been scaled to 100%

## WHO'S IMPACTED BY UNEMPLOYMENT NOW?

**London lost the most jobs (7.2%, compared to 3.5% nationally).** As shown in Figure 4, the number of payrolled employees dropped in all regions, but the biggest impact was in London, where it fell by over 7% comparing January and December 2020 values. As with Figure 1, these data for payrolled employees include those who are furloughed as part of CJRS, so the drop in economically active individuals during this time was even larger ([reflected](#) in the unemployment rate of over 5% as of January 2021).

**FIGURE 4 REGIONAL CHANGE IN THE NUMBER OF PAYROLLED EMPLOYEES**

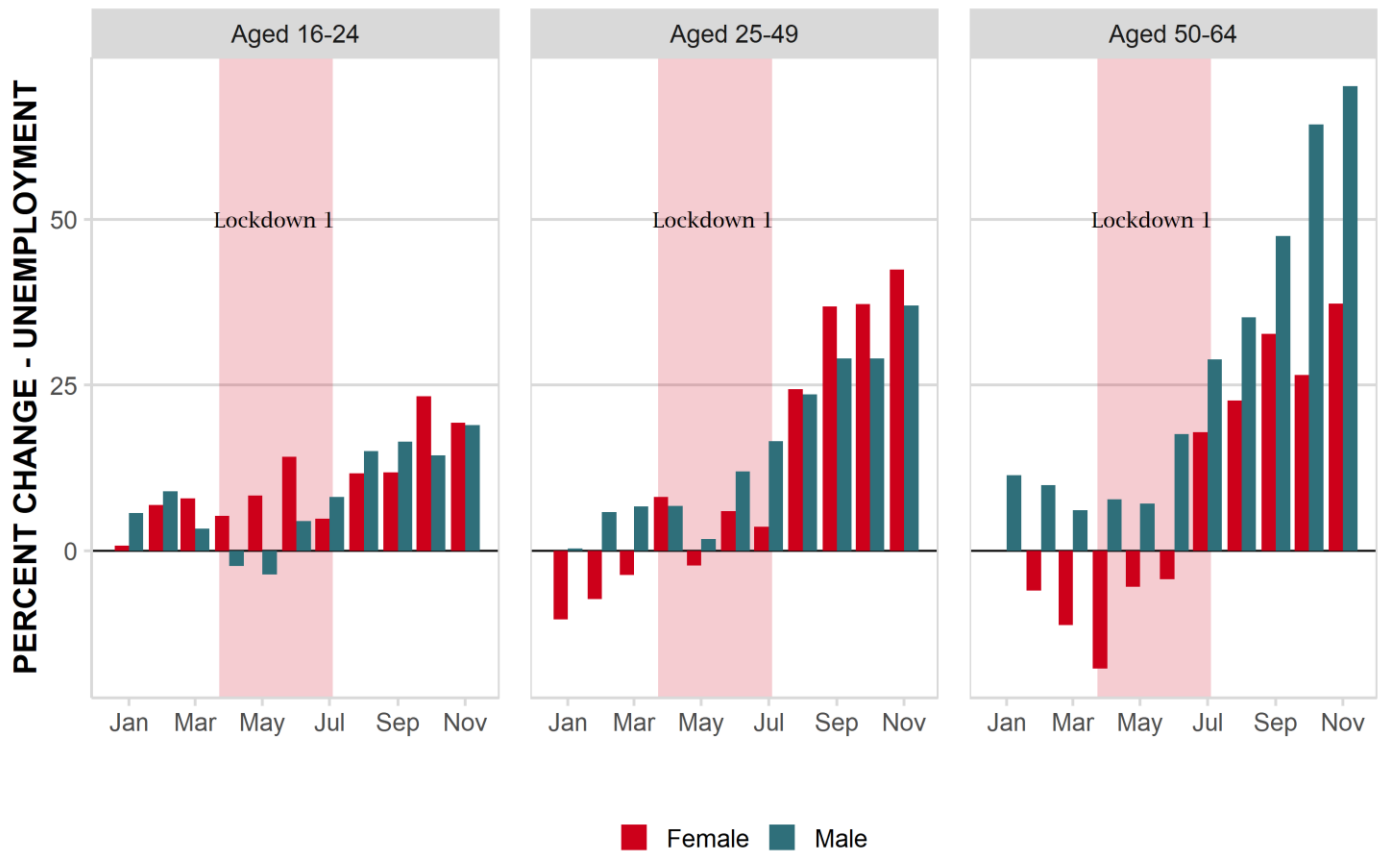


Source: Frontier analysis of earnings and employment from Pay As You Earn Real Time Information, UK: January 2021

Note: The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are employees - such as those on paid leave. Values for the month are an average of employee counts on each day of the month. It is a measure of payrolled employees, as opposed to a measure of employee jobs. The same details as in the note for Figure 1 apply here.

**In Figure 5, we break down changes in unemployment by age groups and gender.** While all age groups and both men and women are affected to a large extent, the impact intensifies in the second half of 2020. In the initial months of 2020, female unemployment for workers aged 25 or older was lower than in early 2019. But this pattern reversed in the second half of the year. Nearly half of all unemployed people in 2020 were aged between 25 and 49, with women hit much more badly than men. The percentage change in unemployment over the year among workers aged between 16 and 24 was also higher among women than men.

**FIGURE 5 IMPACT ON UNEMPLOYMENT BY AGE AND GENDER (YEAR-ON-YEAR PERCENTAGE CHANGE)**



Source: UK Labour Force Survey (23 February 2020 release)  
 Note: The percentage changes in 2020 are from the same months in 2019

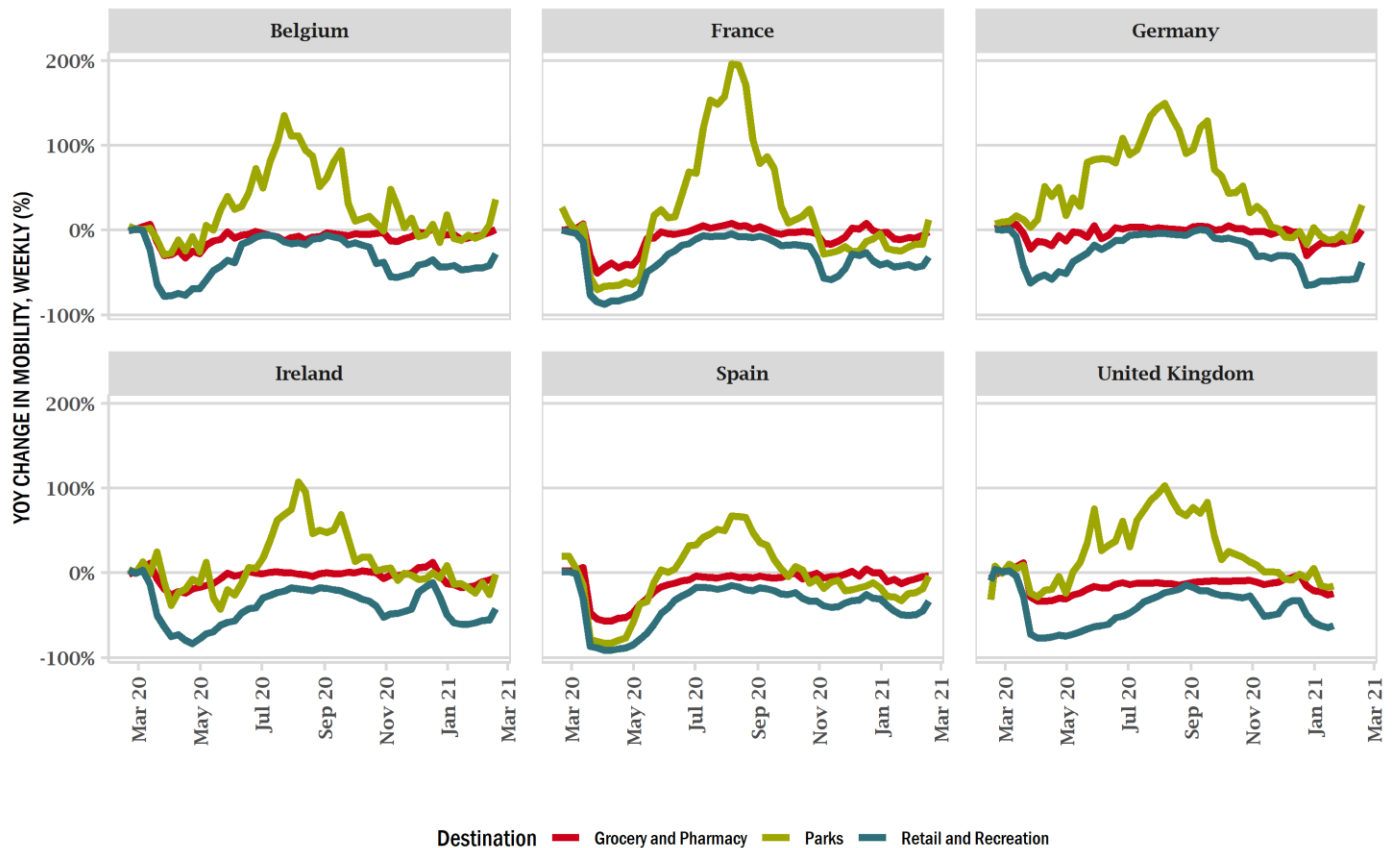
## HOW WE LIVE NOW

Beyond the direct economic effect on people’s incomes and employment, COVID-19 also indirectly impacted how we consume.

### MOBILITY

**Mobility patterns around the world have changed during the pandemic.** Although we can’t use these location data from Google to draw conclusions about how patterns differ from past years, we can see where people spent more or less time as compared to February 2020. We look at these patterns for parks, retail and recreation spaces, and groceries and pharmacies.

**FIGURE 6 CHANGES IN MOBILITY ACROSS COUNTRIES**



Source: Google mobility data

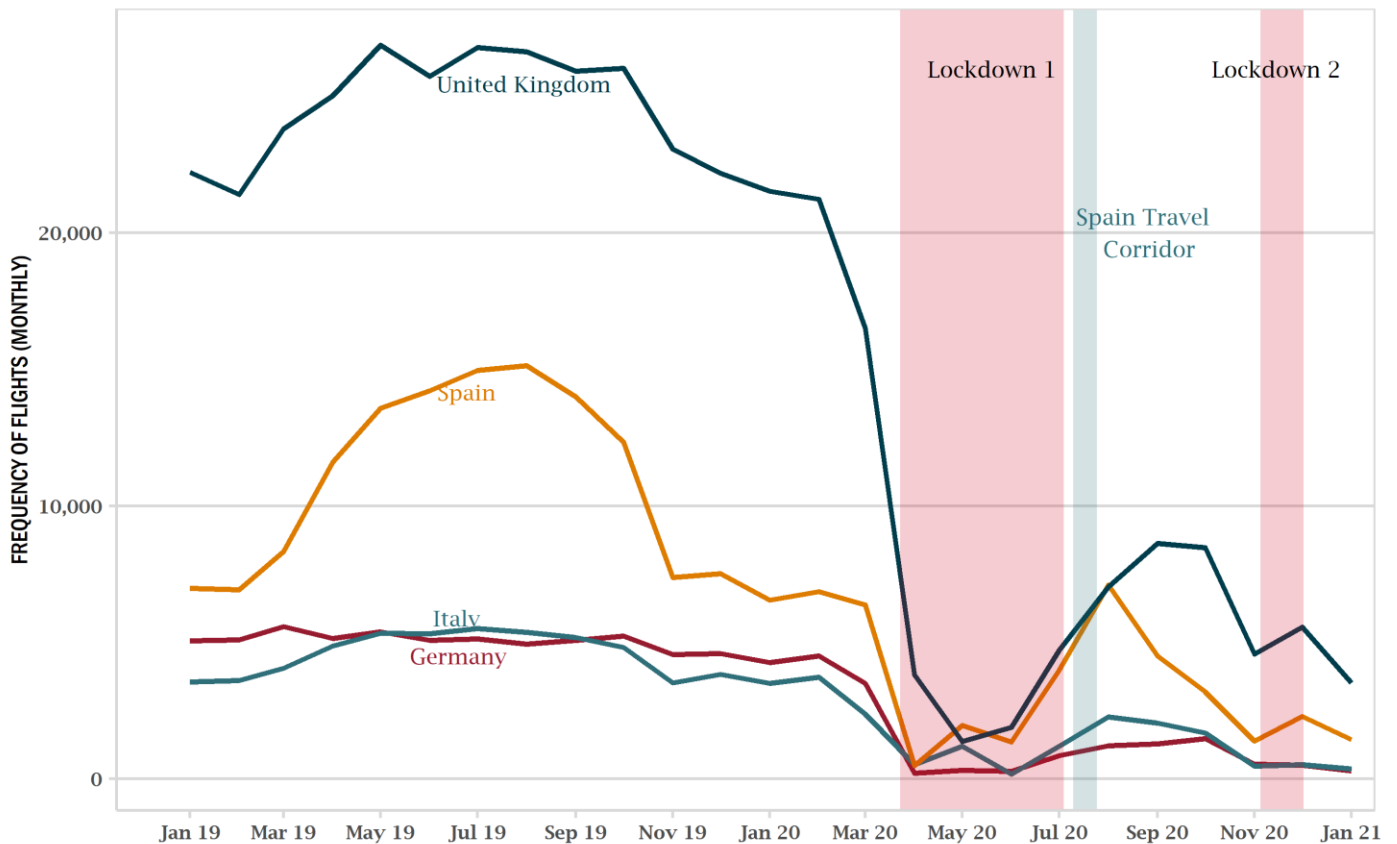
Note: All data on are indexed to February 2020, so percentage changes here are from February.

### AVIATION: KEEP YOUR FRIENDS CLOSER

**Flights from the UK recovered unevenly.** Flights from (and to) the UK have fallen significantly, down by more than 60% since 2019. However, there was a noticeable rebound in flight numbers as the UK exited lockdown in July. Domestic flights within the UK, unaffected by travel corridors, rebounded in the summer to about a third of pre-pandemic levels. Flights to Spain also recovered robustly, particularly as the travel corridor was briefly opened (and even after it suddenly shut). Flight numbers to other destinations in Europe, such as Germany, enjoyed a much smaller summer bounce.



**FIGURE 7 BIENVENIDO**



Source: OAG, Frontier Economics

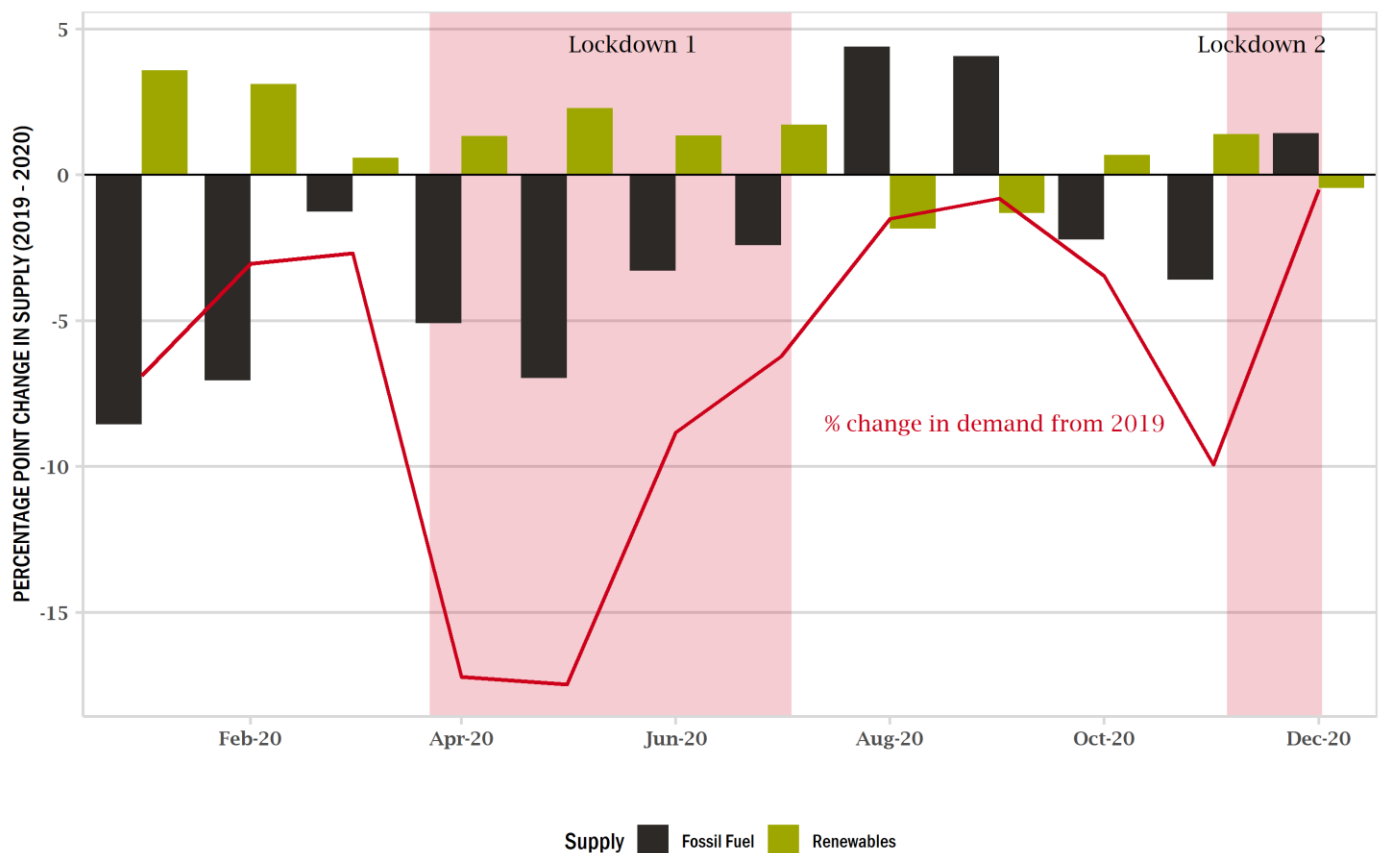
Note: Number of flights departing the UK to historically popular destinations.

## ENERGY: GREEN-LINING

**Electricity demand fell significantly during the lockdown**, particularly the first nationwide one. As a result, there was greater displacement of fossil fuels by lower-marginal-cost renewable sources. This allowed clean energy to meet a greater proportion of electricity demand in 2020 than in 2019, a trend that is likely to continue given the UK government's target of achieving net-zero carbon emissions by 2050.

The UK has been making impressive progress in tapping more clean energy sources. As [early as October 2019](#), renewables generated more electricity than fossil fuels for the first time. The Carbon Brief has [reported](#) on the rapid transformation of the UK's power supply framework in the decade up to 2018.

**FIGURE 8 YEAR-ON-YEAR CHANGES IN ELECTRICITY DEMAND-AND-SUPPLY MIX**



Source: Frontier Economics analysis of Elexon and National Grid data

Note: The bars represent year-on-year changes in the generation mix of energy supplied in the UK. The daily generation mix is broken down into energy sources by the percentage of supply that they meet. These sources include biomass, coal, gas, hydro imports from interconnectors to other countries, nuclear, solar, wind, and other. The percentages for coal and gas are summed to create the 'fossil fuel' percentage, and the percentages for biomass, hydro, nuclear, solar, and wind are summed into the 'renewables percentage'. Imports and other make up a small percentage of the total generation mix and thus their removal does not invalidate our analysis. The monthly generation mix is the average of days. The year-on-year change is calculated as the monthly generation mix for the months of 2020 minus that for the months of 2019. The line represents the year-on-year percentage change in mwh electricity demand in the UK.

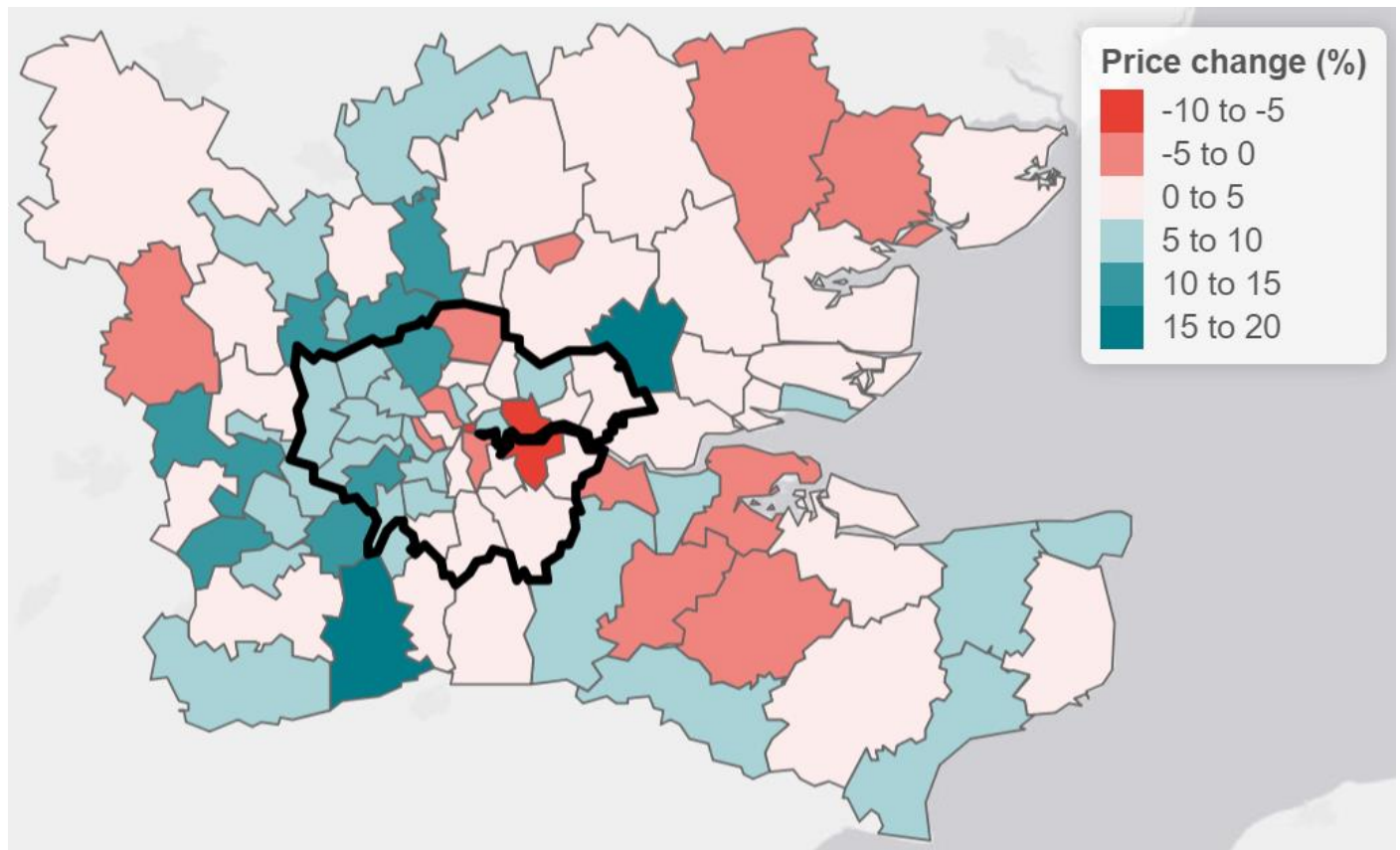
## PROPERTY PRICES: MOVING OUT

**Property prices have risen in the suburbs.** More people have been working from home through the pandemic, and [may continue](#) to do so even after social restrictions are lifted. Presumably, this has caused people to re-evaluate their housing needs. We analysed property prices in London and its neighbouring counties to test this hypothesis.

We observe a shift in people’s residential preferences, with properties further away from the capital or with more outdoor space becoming more popular over the course of the pandemic. Property prices in West London (typically leafy areas such as Richmond Upon Thames) are rising faster than in the rest of the city. But it is in the suburbs bordering London where we see the largest price increases. Areas such as Brentwood or Mole Valley have experienced year-over-year growth of more than 15%.

You can find more detail on this topic in [our bulletin on COVID's impact on housing prices](#).

**FIGURE 9 YEAR-ON-YEAR CHANGE IN PROPERTY PRICES**



Source: Frontier Economics analysis of price-paid data published by HM Land Registry

Note: Price changes calculated as a percentage change in year-over-year monthly median. Map reports average percentage change between May and November 2020.

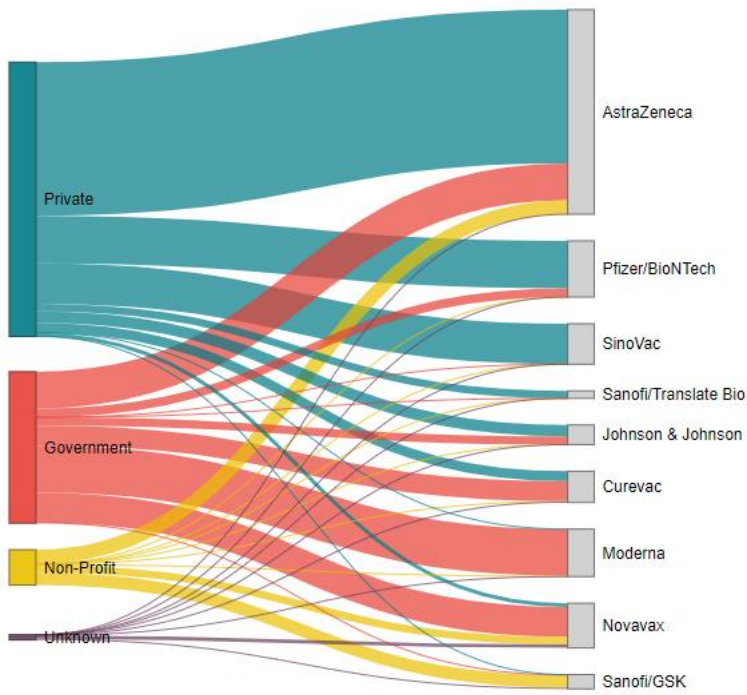
## VACCINATIONS

Across the world, pharmaceutical companies have invested heavily in the development of COVID-19 vaccines. But they’ve also received extraordinary levels of support from governments, which demonstrated a tremendous willingness to invest ([and tolerance for risk](#)).

As Figure 3 shows, three candidate vaccines – Moderna, Novovax and Curevac – are almost entirely funded by public bodies. Only two vaccines have so far received no government or not-for-profit money.

This public funding has been provided in the earliest and riskiest stages of development, easing the financial burden on pharma companies should efforts to yield a vaccine fail. Companies are benefiting from a degree of risk-sharing with public partners that is wholly atypical of pharmaceutical R&D. Is it right that they are then awarded patents and granted monopoly control of vaccine supplies? To what extent do the companies ‘own’ the vaccines?

**FIGURE 10 HOW DO WE FUND VACCINE DEVELOPMENT?**



Source: Frontier analysis of data from Deloitte (2020). This chart is based on analysis presented in a forthcoming Frontier bulletin written by Scott Burrell.

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## WANT TO KNOW MORE?

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