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ABSTRACT

Labour Markets in the Time of Coronavirus: Measuring Excess

No matter the cause, recessions are usually accompanied by some combination of job loss, hiring freezes, wage cuts or hours reductions. In a rapidly evolving economic crisis there is a need for timely information to assess labour market performance and develop strategies to address the problems that emerge. Household labour force surveys are not point-in-time data, but do offer the opportunity to analyse a broader range of outcomes not readily available in administrative data. They can also be utilised at higher frequencies than is normally associated with them. In what follows, the weekly information contained in the UK Labour Force Survey is tracked for several labour market outcomes from the first week of 2020 and onward as the Covid-19 crisis developed in spring 2020. The indicators are presented in "excess" form to gauge how far the 2020 incidence of a particular outcome differs from its weekly norm. It seems that the most common metrics of labour market performance, like unemployment or wage rates, show little departure from recent norms over the first few months of the crisis. The initial margins of adjustment were instead some cumulative 50 million more weekly workplace absences than usual during lockdown, notable hours reductions of up to 25% among the majority who carried on working, together equivalent to around 3 weeks of lost working for the whole workforce, allied to a notable stalling of hiring that had already begun several weeks before lockdown.

JEL Classification: J0, J3, J6

Keywords: COVID-19, unemployment, hours, wages, hiring

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Introduction

With few parallels in recent history[1] it is hard to predict how exactly the coronavirus pandemic and the ensuing economic shock to production and consumption will manifest itself in the labour markets of the industrialised world, let alone in emerging economies. We do know that recessions, of whatever cause, are usually accompanied by some combination of job loss, hiring freezes, wage cuts or hours reductions (Gregg and Wadsworth 2011). The relative incidence of these facets typically varies from country to country, partly dependent on the country-specific institutions in place, (OECD 2017). Even within countries there will be shifts in incidence of these various features during the course of a recession, (Elsby, Smith and Wadsworth 2011, 2016) and indeed across recessions depending on the nature of the economic shock and its interaction with the institutions that hold sway at the time.

In a rapidly evolving economic crisis, whatever the source, the need for timely information to assess labour market performance and then develop strategies to address the problems that emerge is paramount. Household labour force surveys are not point-in-time data, but do offer the opportunity to analyse a broader range of outcomes not readily available in administrative data that allow a more comprehensive view of the labour market performance of an economy. Moreover, the presence of weekly data in these surveys facilitates a higher frequency analysis than is normally afforded the outcomes derived from such survey data. The UK Labour Force Survey, (LFS), is in the field all year round and while released to the public on a quarterly basis does contain information on the week in which the household was interviewed (the "reference week"). As such any labour market indicator can be estimated at weekly intervals and its course tracked throughout the calendar year

To see how the epidemic influenced the UK labour market at the onset of the crisis, the weekly data are presented in the "excess" form often used by epidemiologists and statisticians to gauge how far away from weekly norms the incidence of a particular outcome may be.[2]

[1] The 1918 flu pandemic is perhaps the nearest comparator event, though its economic effects are hard to untangle from the aftermath of World War 1.

[2] See, for example, the excess death numbers reported in the UK by the Office for National Statistics (ONS) https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths

Presenting labour market data in this way also reveals any regular seasonal patterns in the data that are often overlooked by analysts.

Labour Market Responses to an Economic Shock

Faced with an economic shock, firms can take a hit to profits or adjust their costs or both. To a firm, labour costs may be easier to adjust in the short run than capital costs, (buildings, land or machinery). Firms have the option to adjust their labour costs through changes in wages, changes in hours or changes in personnel. Workers have some influence on this adjustment through unions and their intrinsic worth to an employer. This means that mass layoffs of employees should usually be a last resort, but hiring, hours or wages may change as a first response to the shock. Self-employment and temporary working, in contrast, are more cyclical types of working, falling in bad times and rising in good, (see Gregg and Wadsworth (2011) for evidence from previous recessions) and so may be among the first types of working to decline in a downturn.

UK institutions also influence changes. For example, there are laws regulating the notice period for redundancies, but also there may be specific interventions from institutions during a crisis, such as a cuts in interest rates or taxes or job protection schemes. The Coronavirus Job Retention Scheme, in which the government initially paid 80% of the wages (up to a maximum of £2,500) of workers who were furloughed, is unique to this current crisis and its presence is likely to influence the varying incidences of the labour market outcomes we observe.

While the aphorism that no two recessions are the same still holds, the experience and analysis of the causes and aftermath of three large recessions in the past 40 years means we probably now know where to look and which indicators to track.

Corona Timeline in the UK

The weeks in the graphs and Tables that follow run from 1 January, 8 January onward to the end of the calendar year. The first case of coronavirus in the UK was confirmed on 31 January 2020 (week 5). The first officially confirmed death in the UK from the virus was on 5 March (week 9). Partly in response to rapidly declining stock markets and commodity prices, the Bank of England cut interest rates from 0.75% to 0.25% on 11 March (week 10). Self-isolation

recommendations were issued on 12 March (week 10) but the UK did not go officially into lockdown until 23 March 2020 (week 12). The government announced that it was to introduce a job furlough scheme alongside support to the self-employed on 20 March (week 12).[3] The stay at home guidelines are not relaxed until 11 May (week 19) when people are asked instead to go to work if possible and to "stay alert". On 1 June (week 22) a phased reopening of schools begins along with outdoor non-food markets and sports activities.

In what follows we show that the most common metrics of labour market performance, unemployment rates and wages, show little departure from recent norms. Nor do layoffs or quits appear very different. But the labour market did react. The initial margins of adjustment were instead many more workplace absences, notable hours reductions in the order of 40% among the majority who carried on working, and an apparent stalling of hiring that had already begun several weeks before lockdown.

Measuring Excess

The commentary which follows looks at the weekly behaviour of several labour market outcomes extracted from the information in the UK Labour Force Survey (LFS) since 2015. The LFS is a quarterly household survey of around 40,000 randomly sampled households, used, among other things, as the basis to estimate the UK unemployment rate according to the ILO/OECD definition. In reality, households are sampled throughout the year. There are variables in the sample that denote which week (and month) the household was sampled. As such the sample week in the calendar year can be pinpointed. The indicators that are presented below are then estimated for each week. There are around 4000 individuals of working age sampled each week.[4]

The performance of each labour market indicator over the crisis is measured relative to a fixed benchmark. The outcomes are presented in graphical form. Each graph follows the same style. The average weekly values for a given labour market indicator Y_i at week w over the last five years, $\bar{Y}_{iw} = \sum_{w=T-5}^{T-1} Y_{iw}$, is used as the norm.

[3] The scheme was not officially opened until April 20, but claims back to 1 March were allowed.

[4] So a typical weekly 95% sample confidence interval of a proportion is between 1 and 1.5 percentage points.

The distance from this norm in any week w to the five-yearly average is one measure of the "excess" in a particular labour market outcome.

$$Excess_w = Y_{iw} - \bar{Y}_{iw}$$

A value of zero indicates no difference from the weekly norm. Large positive excess values signal higher rates than the norm. Large negative values signal lower rates than the norm. The magnitudes of the excess statistic depend on the units of measurement of any given indicator.

The average value for each indicator in any week is then plotted (dotted line in the Figures that follow) together with the five-yearly maximum and minimum values of the chosen indicator for the same week (grey shade). The equivalent 2020 weekly estimates (solid line) are then overlaid. The excess on the graphs is the difference between the solid and dotted lines. Any departure of the 2020 data outside the maxima/minima range can be considered a notable departure from the norm.[5] Indeed a more conservative estimate of the excess would be to take the difference between the current estimate and the maximum/minimum of the sampling bands rather than use the five year average as the benchmark. The deviation from the, average, however can be thought of as the central estimate of excess.

The sum of the excess observed from a given starting week t^* to any week in the future is an estimate of the cumulative total excess population.[6]

$$CExcess_w = \sum_{w=t^*}^{T}(Excess_w) = \sum_{w=t^*}^{T}(Y_{iw} - \bar{Y}_{iw})$$

[5] The minima and maxima shown in the graph effectively therefore take the place of sampling confidence intervals in what follows, though they are very close to the 95% confidence intervals estimated using sample proportions. Estimates available on request.

[6] Any weekly variation in estimates will, in part, be influenced in by both the sample populations and the grossing weights in any week which are, by construction around 1/13 the sample size of the regular quarterly survey. This lower weekly sample size, however, precludes much sectoral or demographic disaggregation of the outcome variables. While in a randomly sampled population the grossing weights in each week of any survey should be representative of the total population, in practice the grossed populations in the LFS from week to week are similar but not exact. Some caution therefore is needed when using grossing weights in this way.

One problem with such measures is that if the population is rising over time, as in the UK, then a norm based on historical averages will tend to be lower than the current count so that $Y_{iw} > \bar{Y}_{iw}$. To offset this, the outcomes we present are not counts of individuals but rates, Y_{iw}/P_{iw}, so netting out the effect of population change over time. Excess outcomes measured in percentages are perhaps less intuitive than cumulative counts of individuals, though can readily be converted into additional "person-weeks" (the sum of the number of associated people in each week) by multiplying the current grossed-up survey population by the estimated excess percentage. However, a large positive or negative cumulative total is indicative of sustained departure from the norm and hence worth noting.

It is also possible that some of the indicators may show signs of excess over the Covid-19 period but this reflects a bunching outcomes that might otherwise have taken place later in the year if the pandemic had not occurred. Layoffs, for example, may have been brought forward when they would have taken place ordinarily later in the year. If so, the cumulative excess measures taken over the Corona period will be over-estimates of the excess brought on by the crisis and there will be a dip in the labour market indicator *below* the weekly norm some time later in the year. The extent to which any layoffs, or quits, or any other indicator bunch prematurely can only be assessed as subsequent data is released.

The vertical lines on the graphs show the point of the first registered Corona related death (week 5) and the week the UK went into lockdown (week 12). The graphs currently run to week 22 (the last week of May 2020). The cumulative excess count is started at week 5, the week of the first officially confirmed Corona case in the UK.

Tables 1 to 4 give the weekly excess and cumulative excess estimates for these indicators. As the crisis continues these graphs and Tables can be extended to monitor labour market performance as it evolves. [7]

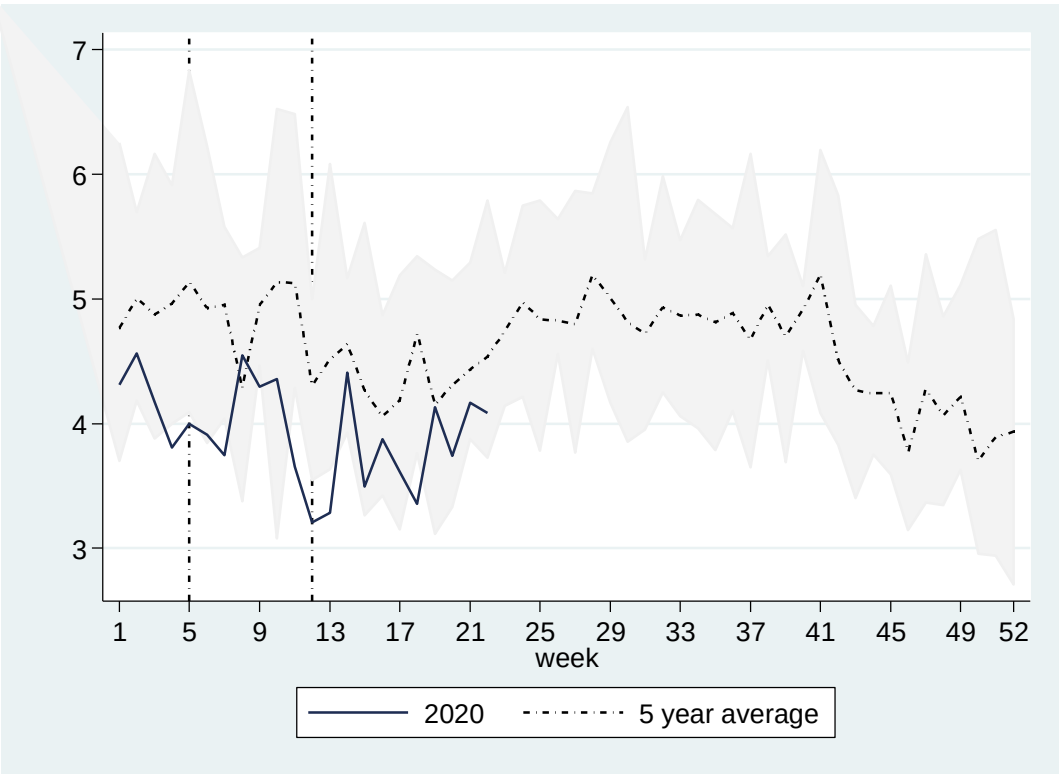
[7] The crisis brings its own problems for household surveys regarding response rates and ways of describing unfamiliar working arrangements. See the discussion in ONS (2020a). Single month LFS statistics are now published by ONS but not in comparison with previous years, (ONS 2020b).

Unemployment and Employment

Using the most common metrics of labour market performance[8], it is apparent that not much can be observed in the UK over the first 22 weeks of 2020 that was unusual (see Figure 1). Overall, the UK labour market had been performing rather well prior to 2020, with the national unemployment rate around 4% to 5% and the employment rate reaching record highs. The seasonal pattern of unemployment over the course of a year is also shown in Figure 1. The Figure shows that UK unemployment is typically lower in the weeks that run up to Christmas and higher immediately after.

However, the weekly unemployment rate in the first 18 weeks of the UK Corona crisis was well below the average of the past five years. The cumulative excess unemployment estimate in Table 1 duly gives a large negative number by week 22, confirming that unemployment was still well within recent norms between week 5 and the end of week 22.

Figure 1. UK Unemployment Rate by Week

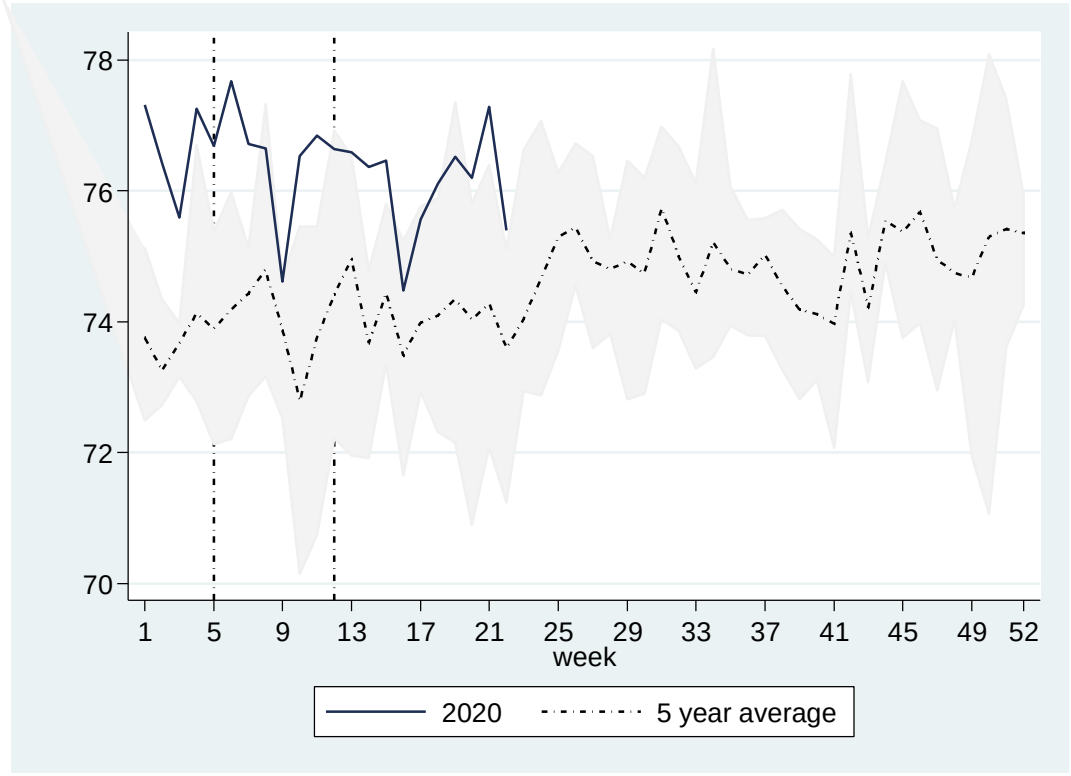


Source: LFS author calculations

[8] Estimated according to the ILO/OECD definition

A similar pattern can be seen with the weekly employment rate (employment share of the 16-64 year old population). Employment in the UK had been rising year on year for the last eight years before the crisis. Figure 2 shows the seasonal pattern of employment rising over the calendar year in this window, partly a reflection of the near continuous growth in UK employment at this time. Prior to lockdown, the 2020 employment rate was generally above the preceding five year average. In the week before lockdown the employment rate starts to dip at a time when the average data line indicates a rise in employment would be expected at this point in the year. However, the size of this dip is so small that there is no obvious departure from previous norms in week 12 and indeed onward to week 22.

Figure 2. Employment Rate

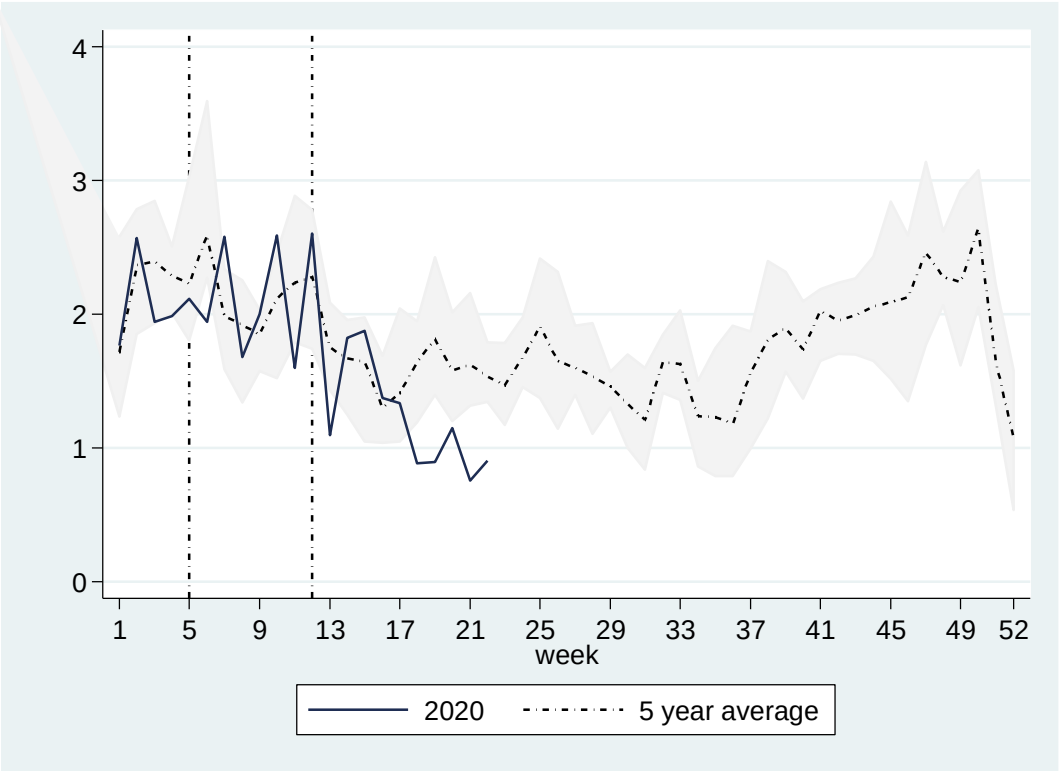


Source: LFS author calculations

Figure 3 shows the weekly absence rate from work due to self-reported illness. Around 2% of the employed workforce are absent sick in a typical week, with fewer sickness absences in Christmas week and spring and summer, but more in the run up to Christmas and though the winter. There is no indication that the first five months of 2020 was very different from these

norms. Indeed, self-reported absences due to illness after the first week of lockdown were somewhat lower than the norm for the equivalent week in the year.

Figure 3. Absence from Work Due to Illness



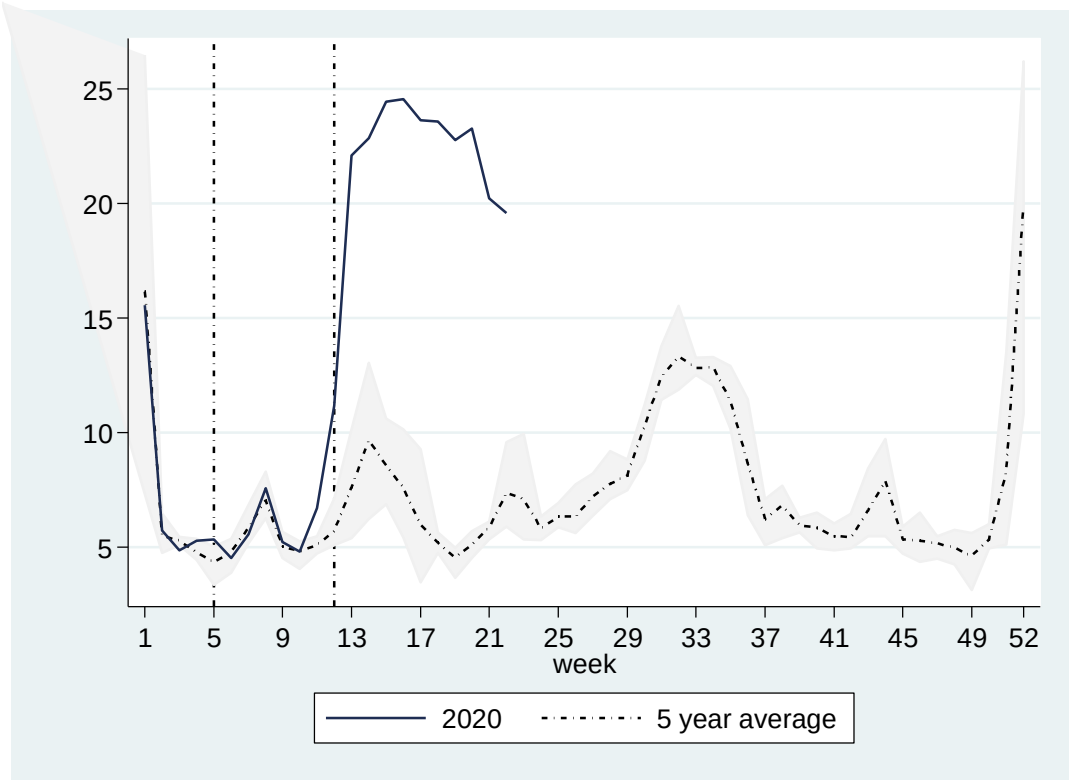
Other Margins: More Absences

However, things start to look less than normal when we look at other possible margins of labour market adjustment to a shock. Figure 4 shows the percentage of workers who say they had a job but were away during the survey week. In the LFS, any individual recorded as away from work is also recorded as having zero hours of work in the survey week – but is still classified as in employment. The weekly norms show large spikes in away-from-works around Christmas, Easter and the summer holiday season. However, there is a notable departure from the norm in 2020 that begins in week 10 and increases rapidly to around 24.5% of the employed working age population by week 16 (four weeks into lockdown). The Figure and Table 2 show that this is an excess of 17 percentage points on the weekly norm, around 5.4 million more workers away from their jobs than expected at that point in the year. [9] While

[9] There were around 31.6 million working age individuals in work in spring 2020. 24.6% away from work is around 7.8 million and an excess of 17 points is around 5.4 million additional absences. The cumulative excess

week 16 is the peak absence week, the excess total (column 2, Table 2), keeps rising for another two weeks until week 18. This is because absences in weeks 17 and 18 were relatively higher than the equivalent weekly norms. By week 22, the start of the government's gradual relaxation of lockdown, self-reported absences from work had fallen back to just under 20% of the employed workforce, an excess of 12 percentage points on weekly norms. The cumulative excess estimate for week 22, (column 3 Table 2), suggests that there were around 53 million additional person-week absences from work by this time. The UK government's furlough scheme, announced in week 12, only compensated employers if their workforce remained at home. A similar scheme applied to the self-employed unable to work through the crisis. It may be that these features are reflected in Figure 4.

Figure 4. With Job but Not Working



Source: LFS author calculations

of 167.7 points is therefore around 53 million additional person-week absences, which is equivalent to the entire workforce doing nothing for one week and 3 days. The more conservative estimate based on deviation from the five-yearly maximum gives a cumulative excess of 143.7 points, some 45 million additional person weeks or an additional one week and 2 days of doing nothing.

Other Margins: Fewer Hours

The shock to output implied by the estimates above is made larger because among the majority of employed still classified as in work and not away from the job, 48% reported working fewer hours than usual in lockdown week 12. However, since week 12 has included Easter in the past, 48% working fewer hours is not unprecedented at this point in the calendar. This estimate is within the five year sampling intervals shown in Figure A1, but above the five year average benchmark used to calibrate excess.[10] In the same week, 17% of the employed worked more hours than usual, (see Figure A2 and column 7, Table 2), again not outside the norm for this time of the year, (See Figures A1 to A3 in the appendix and Table 2). However, it is clear, from Figure A1,that the reduction in hours continues beyond week 12 until week 22, always more than the 5 year average but not always beyond the five year sampling intervals.

The net result combining those working fewer and those working more hours is that the number of hours worked by the average (median) worker fell from the norm of 38 to 23 during week 13, a fall of 40%, (Figure 5A and Table 3), before gradually rising back to around 32 hours a week by week 22, still notably less than the norm for this week. Figure 5A shows average hours worked usually drop noticeably at Christmas, Easter and the summer holiday weeks, but the drop in week 13 and afterwards are notable.

It is perhaps more intuitive to try to estimate the change in the total number of hours worked relative to the norm.[11] With 31.5 million people in work, multiplying by the number of hours each person works gives a weekly norm of around 1000 million person hours, (Figure 5B). Again the seasonal fluctuations around this norm are apparent in the movement of the five year average over the year.

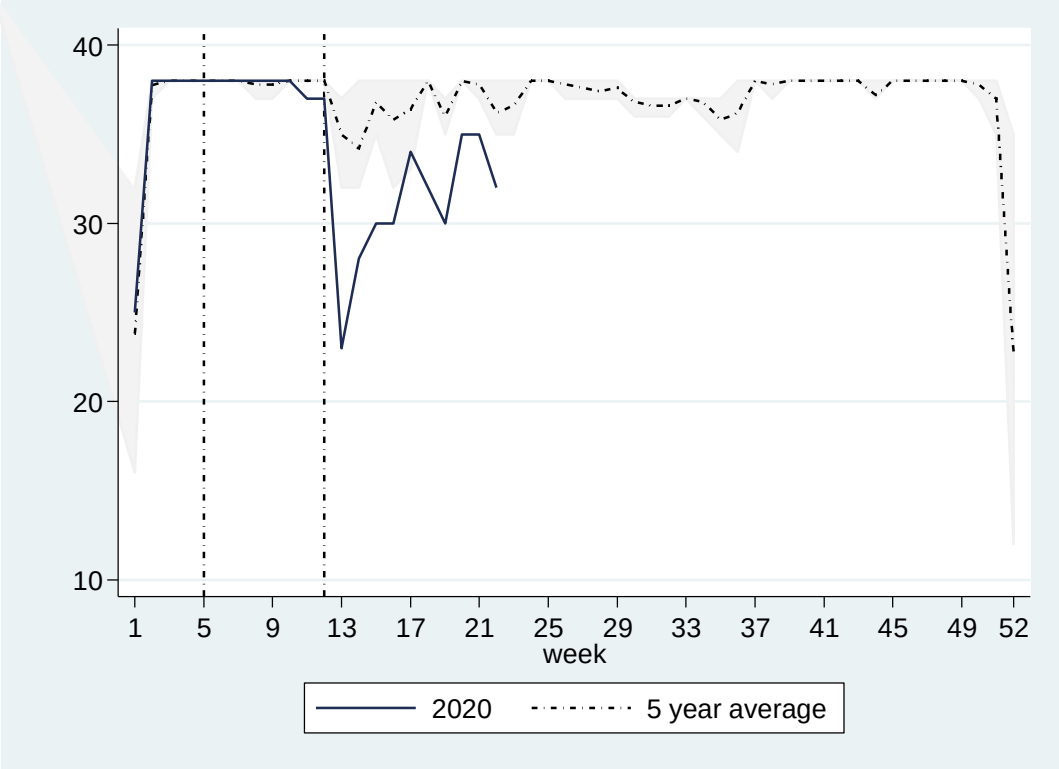
There is a notable fall below the norm in week 13 of 2020 that continues until week 22. Total hours worked fell in week 13 to around 690 million, some 35% below the hours' totals in the

[10] However Easter 2020 didn't arrive until week 15.

[11] Subject to the caveats discussed above regarding caution when calculating excess measures of an outcome like hours measured in levels - because of population growth over time and population grossing volatility in the survey data.

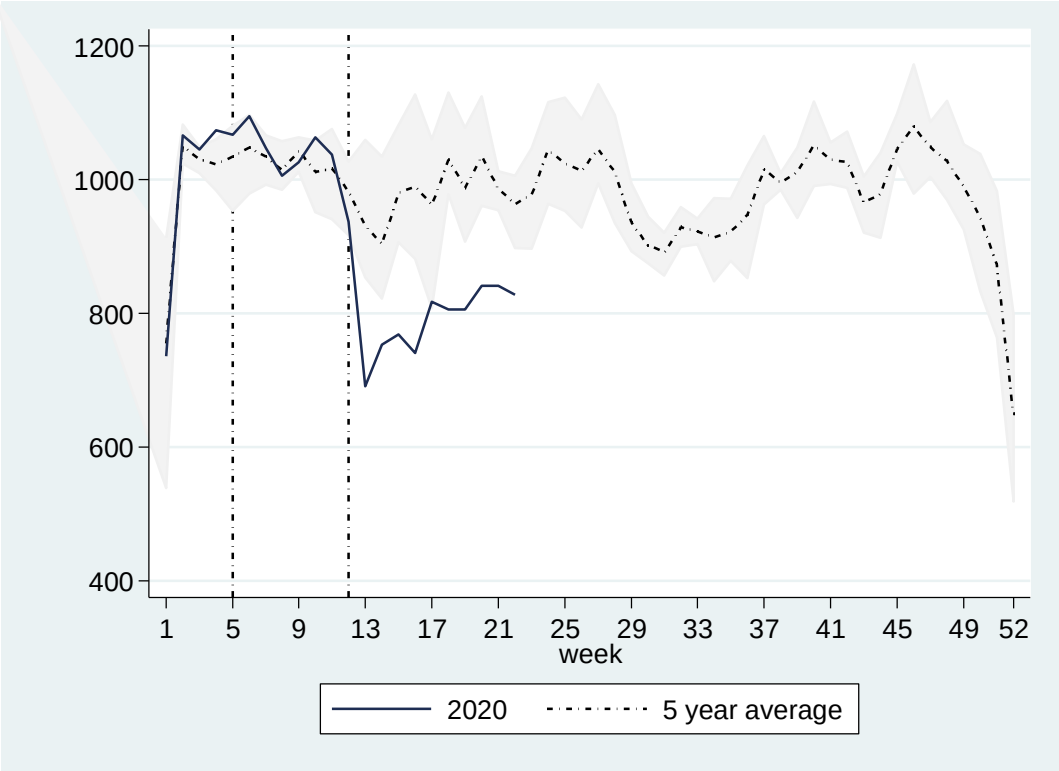
weeks immediately before the crisis and some 25% below recent norms (Table 3). The excess total by week 22 is still some 135 million hours below the norm for this period and the cumulative excess suggests a fall of 1700 million hours worked since the crisis began. This represents a considerable drop in output to add to the loss from workplace absences.[12]

Figure 5A. Median Hours Worked



[12] If the average week consists of 1000 million hours, then a cumulative excess estimate of 1700 million hours is around one week and 3 days of lost output. This is in addition to the one week and 3 days lost from workplace absence. The more conservative cumulative excess estimate, based on deviation from the weekly 5-year minimum, is 528 million hours, some 2.5 days of lost working.

Figure 5B. Total hours worked



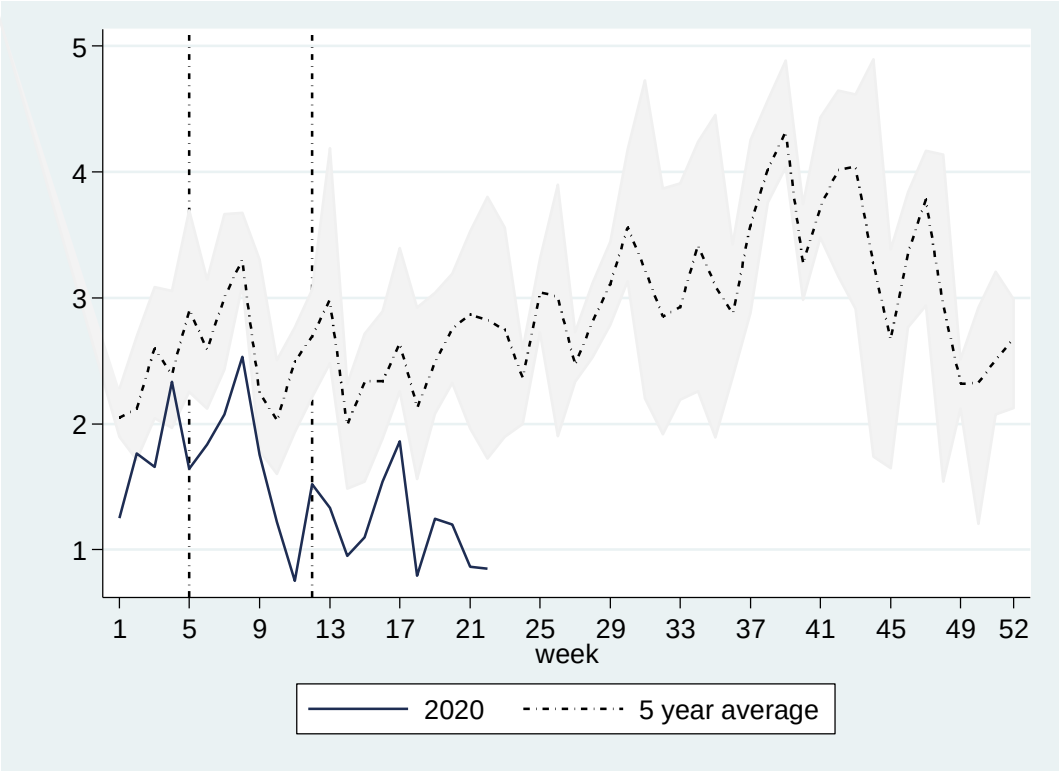
Source: LFS author calculations

Other Margins: Hiring

Employers also have the option to save on costs by restricting hiring during a prolonged shock. It seems that hiring in the UK fell noticeably over the crisis. Figure 6 plots the proportion of employees who have been in new jobs for 1 month or less as a proxy for the hiring rate. The graph shows that usually between 2% to 4% of the workforce is newly-hired or starting a new job in any week, with relatively fewer hires in spring, and autumn being the main hiring period in the UK. However, it is again apparent that hiring rates in the early spring of 2020 were some 1 to 2 percentage points below seasonal norms in the weeks leading up to the lockdown and thereafter. In short, hiring stalled over the crisis. Cumulative hires were some 21.5 percentage points lower than usual by the end of week 22 (Table 4, column 3). This is around 6.8 million fewer hires than might be expected.[13]

[13] 31.6 million employed multiplied by the 21.5 percentage point cumulative excess in Table 4 is around 6.8 million. A weekly average hiring rate of 2.8% of the workforce means that total hiring over a year is equivalent to approximately 150 % of the workforce, or 47.5 million hires. On this basis hiring in 2020 is some already 14% down on a typical year.

Figure 6. New Hires

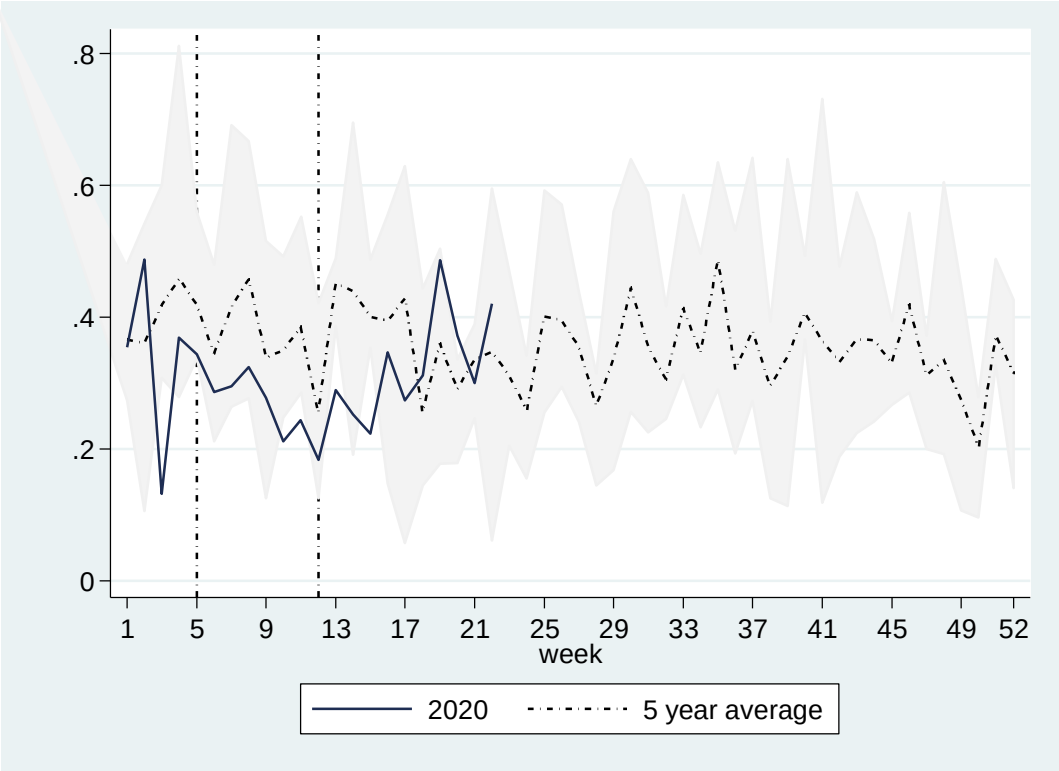


Source: LFS author calculations

With hiring stalled it could be that employers have adjusted their workforce costs without the need for further adjustments. Figure 7 shows the weekly pattern of the share of redundancies (layoffs) in the working age population over time. There is little evidence of job loss above and beyond recent seasonal norms at this point in the year. Figure 8 shows quits.[14] While layoffs show little seasonal pattern through the year, quits are noticeably higher in autumn (when hiring is also at its highest). With hiring stalled there is less incentives for workers to quit to find new work. Neither graph, however, shows much departure from recent norms at this stage in 2020.

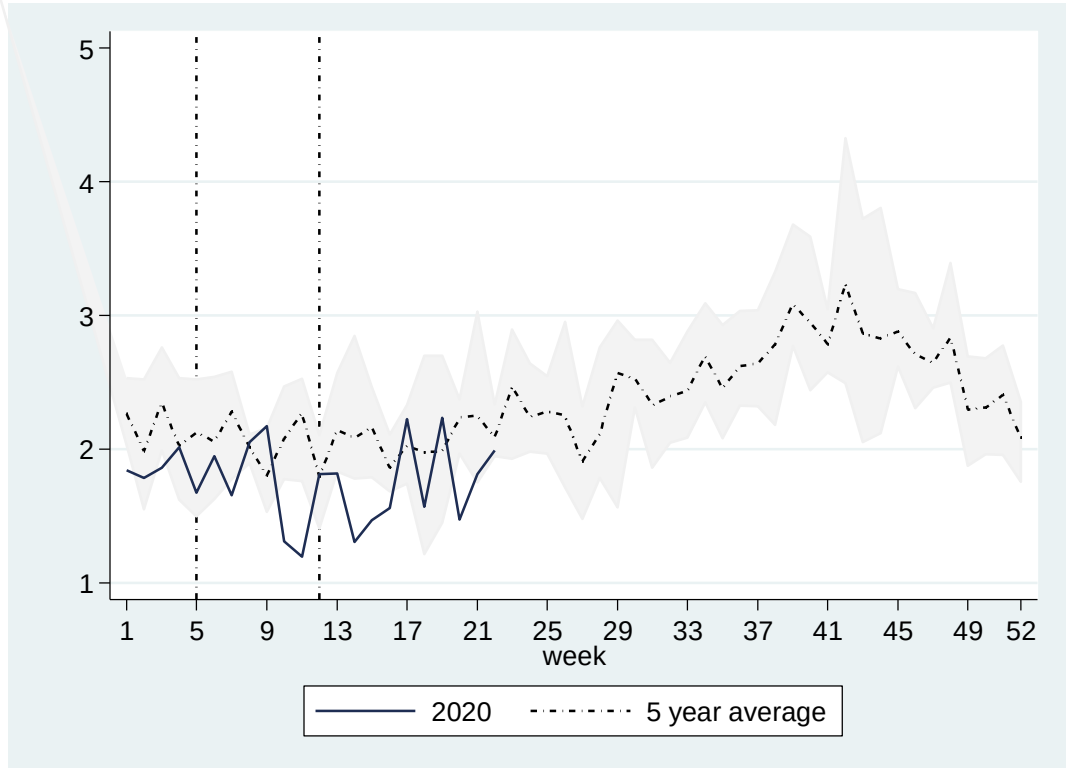
[14] In the LFS redundancies (voluntary and involuntary) are observed within a 3-month window, so these estimates are effectively 3 month moving averages and hence somewhat lagging indicators. A quit is anyone who left work because of resignation, health, retirement, for education purposes, family reasons or other.

Figure 7. Layoffs



Source: LFS author calculations

Figure 8. Quits

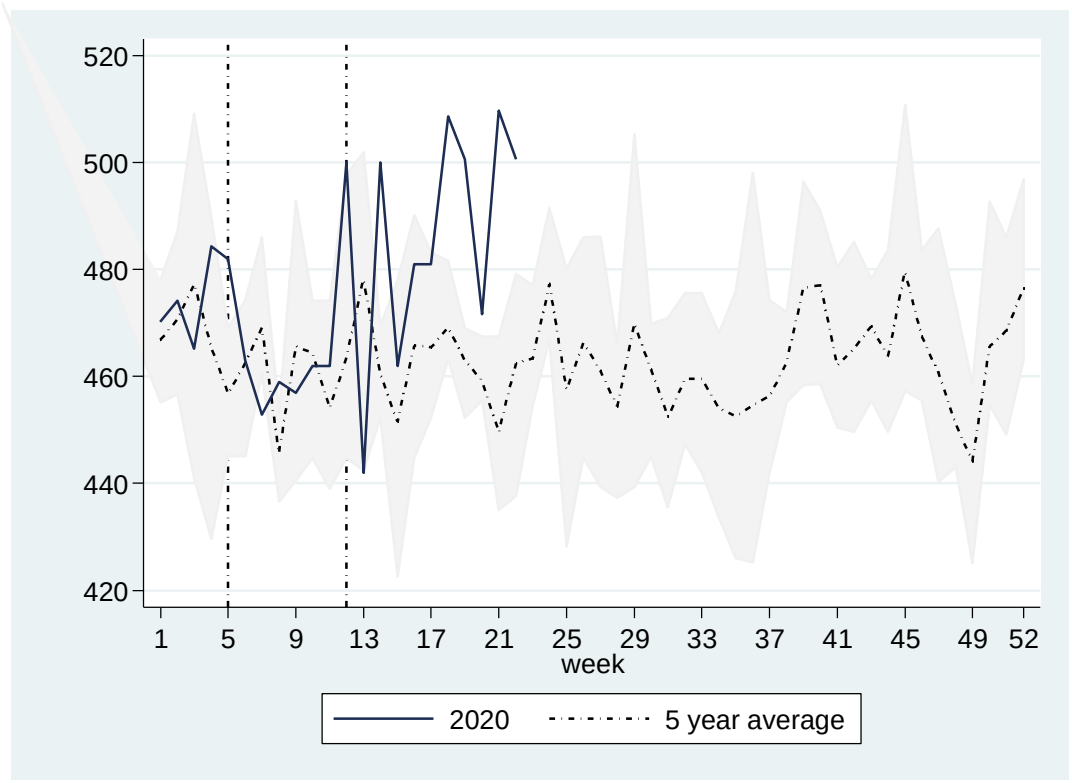


Source: LFS author calculations

Other Margins: Wages

The other possible margin of adjustment open to firms facing a negative shock is to negotiate lower wages. Short-time working may also reduce weekly wages. During the last recession, nominal wage freezes and real wage cuts, were the principle form of adjustment in the UK labour market, (Costa and Machin 2016) which arguably arrested inflows into unemployment. However, any impact of the current crisis on wages is not yet apparent as Figure 9 shows. Median real weekly wage levels (nominal wage deflated by consumer prices) in the UK were broadly in line with recent trends. While a sharp fall in real wages can be seen around week 13, it is not outside the range seen in the past five years for the time of year.[15] Thereafter, estimated real wages in the crisis appear to have grown strongly.

Figure 9. Real Wage Levels by Week



Source: LFS author calculations

[15] Nominal wage and wages deflated by producer prices graphs show a similar pattern.

Conclusions

In a rapidly evolving economic crisis, the need for timely information to assess labour market performance and then develop strategies to address the problems that emerge is paramount. Household labour force surveys are not point-in-time data but do offer the opportunity to analyse a range of outcomes not readily available in administrative data that allow a broader view of labour market performance. The presence of weekly data in these surveys also facilitates a higher frequency analysis than is normally afforded. It is clear from the analysis above that the typical metrics of labour market performance were not noticeably affected during the first three months of the coronavirus crisis in the UK. Instead the onset of the crisis was marked by noticeably higher absences from work, a large rise in short-time working and hiring freezes rather than wage cuts and mass layoffs. It could be helpful for economists and policy analysts to return to these indicators as the crisis develops.[16]

[16] The graphs will be updated in the State of Working Britain blog as new data arrive.

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Table 1. Excess and Cumulative Excess Estimates of Unemployment, Employment and Wages, 2020

	Unemployment Rate			Employment Rate			Real Weekly Wage		
Week	%	% point Excess	Cumulative Excess	%	% point Excess	Cumulative Excess	£	£ Excess	Cumulative Excess
1	4.3	-0.5		77.3	3.6		476	15	
2	4.6	-0.4		76.4	3.2		476	16	
3	4.2	-0.7		75.6	1.9		465	3	
4	3.8	-1.2		77.3	3.1		484	30	
5	4.0	-1.1	-1.1	76.7	2.8	2.8	482	35	35
6	3.9	-1.0	-2.2	77.7	3.5	6.3	462	7	42
7	3.7	-1.2	-3.4	76.7	2.3	8.6	452	-1	40
8	4.5	0.3	-3.1	76.6	1.8	10.4	462	23	63
9	4.3	-0.7	-3.8	74.6	0.7	11.2	452	-6	58
10	4.4	-0.8	-4.5	76.5	3.7	14.9	462	-4	55
11	3.7	-1.5	-6.0	76.8	3.1	18.0	471	17	71
12	3.2	-1.1	-7.1	76.6	2.2	20.2	485	25	96
13	3.3	-1.2	-8.3	76.6	1.6	21.9	452	-9	87
14	4.4	-0.2	-8.6	76.4	2.7	24.5	508	52	211
15	3.5	-0.8	-9.3	76.5	2.0	26.6	462	9	220
16	3.9	-0.2	-9.5	74.5	1.0	27.6	500	52	272
17	3.6	-0.6	-10.1	75.6	1.6	29.1	487	43	315
18	3.4	-1.4	-11.5	76.1	2.0	31.2	509	53	368
19	4.1	-0.0	-11.5	76.5	2.2	33.3	501	42	410
20	3.7	-0.6	-12.0	76.2	2.2	35.5	482	25	435
21	4.2	-0.3	-12.3	77.3	3.0	38.5	516	63	498
22	4.1	-0.4	-12.8	75.4	1.8	40.3	509	56	554

Table 2. Excess and Cumulative Excess Estimates of Work Absence and Hours Changes, 2020

	% Away From Work			% Working Fewer Hours			% Working More Hours		
Week	%	% point Excess	Cumulative Excess	%	% point Excess	Cumulative Excess	%	% Excess	Cumulative Excess
1	15.6	-0.6		49.6	-2.3		12.0	-0.1	
2	5.7	0.3		25.4	-0.9		20.7	0.3	
3	4.9	-0.4		23.8	-1.0		21.1	0.5	
4	5.3	0.5		23.8	0.2		21.4	0.0	
5	5.3	1.0	1.0	23.1	0.1	0.1	20.9	0.0	0.0
6	4.5	-0.3	0.7	22.5	-0.7	-0.7	21.4	0.2	0.3
7	5.5	-0.3	0.4	24.9	1.3	0.6	21.7	0.8	1.0
8	7.6	0.5	1.0	24.9	0.3	0.9	20.9	0.3	1.4
9	5.2	0.2	1.1	23.9	-1.1	-0.2	21.6	1.3	2.7
10	4.8	0.0	1.1	24.8	2.3	2.2	21.7	-0.1	2.6
11	6.7	1.6	2.7	25.2	2.3	4.5	23.7	2.0	4.6
12	11.2	5.5	8.2	31.3	7.3	11.8	22.4	0.6	5.2
13	22.1	14.5	22.7	47.8	13.4	25.1	16.9	-0.9	4.3
14	22.9	13.2	35.9	45.2	9.4	34.6	16.3	-0.3	3.9
15	24.5	15.9	51.8	42.7	12.4	47.0	18.2	-0.6	3.3
16	24.6	17.0	68.7	40.4	9.5	56.5	17.8	0.0	3.3
17	23.6	17.7	86.4	33.4	3.1	59.6	19.9	0.5	3.8
18	23.6	18.4	104.8	34.2	9.2	68.8	20.9	1.1	4.9
19	22.8	18.2	123.0	43.9	9.5	78.3	17.8	0.9	5.8
20	23.3	18.2	141.2	34.0	10.1	88.4	22.0	0.7	6.4
21	20.2	14.4	155.5	33.7	8.6	97.0	20.3	-0.2	6.2
22	19.6	12.2	167.7	38.7	6.6	103.7	17.5	-0.3	5.9

Table 3. Excess and Cumulative Excess Estimates of Median and Total Hours, 2020

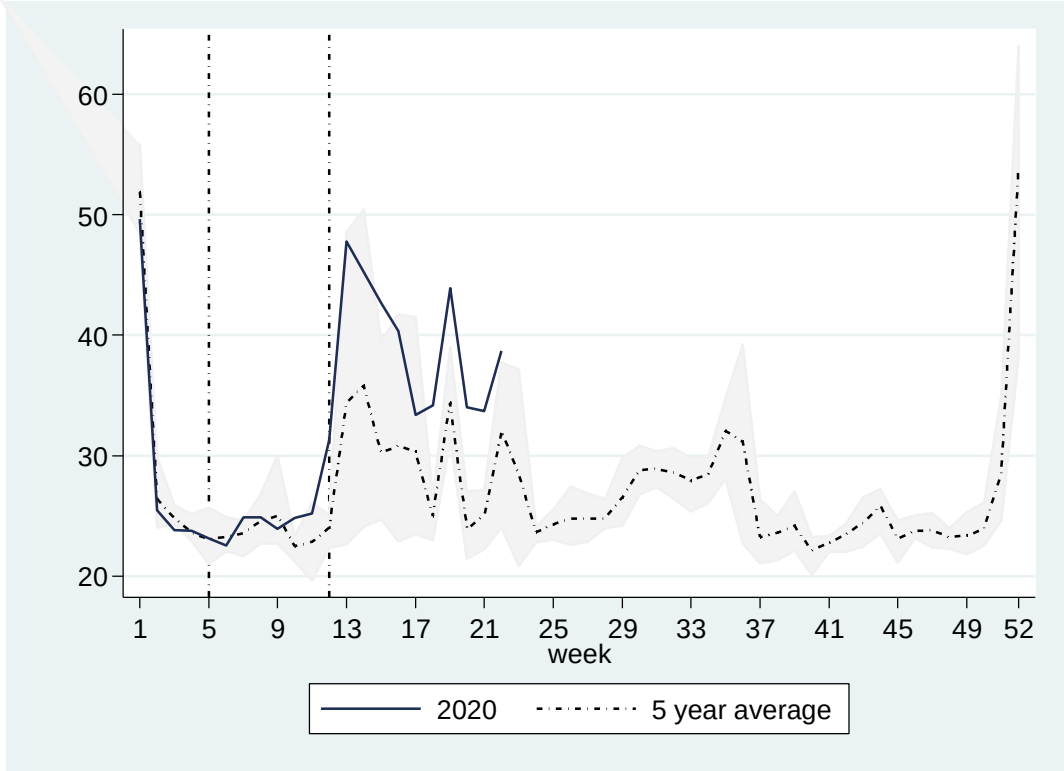
	Median Hours			Total Hours		
Week	%	Excess	Cumulative Excess	%	Excess	Cumulative Excess
1	25	1		736	-18	
2	38	0		1067	16	
3	38	0		1045	15	
4	38	0		1074	51	
5	38	0	0	1067	33	33
6	38	0	0	1095	46	79
7	38	0	0	1047	13	92
8	38	0	0	1006	-9	84
9	38	0	0	1026	-18	66
10	38	0	0	1063	52	118
11	37	-1	-1	1037	21	138
12	37	-1	-2	937	-45	94
13	23	-12	-14	691	-240	-146
14	28	-6	-20	753	-150	-297
15	30	-7	-27	769	-211	-508
16	30	-6	-32	741	-249	-757
17	34	-2	-35	817	-145	-902
18	32	-6	-41	805	-224	-1126
19	30	-6	-47	806	-182	-1308
20	35	-3	-50	841	-194	-1501
21	35	-3	-53	842	-144	-1646
22	32	-4	-57	828	-135	-1781

Table 4 Excess and Cumulative Excess Estimates of Hiring, Layoffs and Quits, 2020

	% Hired			% Laid Off			% Quit		
Week	%	Excess	Cumulative Excess	%	Excess	Cumulative Excess	%	Excess	Cumulative Excess
1	1.3	-0.8		0.7	-0.4		1.8	-0.4	
2	1.8	-0.4		0.9	-0.1		1.8	-0.2	
3	1.7	-0.9		0.7	-0.4		1.9	-0.5	
4	2.3	-0.1		1.1	0.0		2.0	-0.0	
5	1.6	-1.3	-1.3	0.9	-0.2	-0.2	1.7	-0.5	-0.5
6	1.8	-0.8	-2.0	0.7	-0.4	-0.6	1.9	-0.1	-0.6
7	2.1	-0.9	-2.9	0.9	-0.0	-0.7	1.7	-0.6	-1.2
8	2.5	-0.8	-3.7	0.8	-0.2	-0.8	2.1	0.0	-1.1
9	1.8	-0.5	-4.2	0.9	-0.0	-0.8	2.2	0.4	-0.8
10	1.2	-0.8	-5.0	0.7	-0.2	-1.0	1.3	-0.8	-1.5
11	0.8	-1.7	-6.8	0.5	-0.4	-1.4	1.2	-1.1	-2.6
12	1.5	-1.2	-7.9	0.6	-0.2	-1.7	1.8	0.0	-2.6
13	1.3	-1.6	-9.6	0.7	-0.2	-1.8	1.8	-0.3	-2.9
14	1.0	-1.0	-10.6	0.6	-0.3	-2.1	1.3	-0.8	-3.7
15	1.1	-1.2	-11.8	0.5	-0.3	-2.4	1.5	-0.7	-4.4
16	1.5	-0.8	-12.6	0.9	0.1	-2.3	1.6	-0.3	-4.7
17	1.9	-0.8	-13.4	0.9	0.0	-2.3	2.2	0.2	-4.5
18	0.8	-1.3	-14.8	0.7	-0.0	-2.3	1.6	-0.4	-4.9
19	1.2	-1.2	-16.0	0.9	0.1	-2.2	2.2	0.3	-4.7
20	1.2	-1.6	-17.6	0.8	0.1	-2.1	1.5	-0.8	-5.4
21	0.9	-2.0	-19.6	0.7	-0.1	-2.2	1.8	-0.4	-5.9
22	0.8	-2.0	-21.5	0.9	0.2	-2.1	2.0	-0.1	-6.0

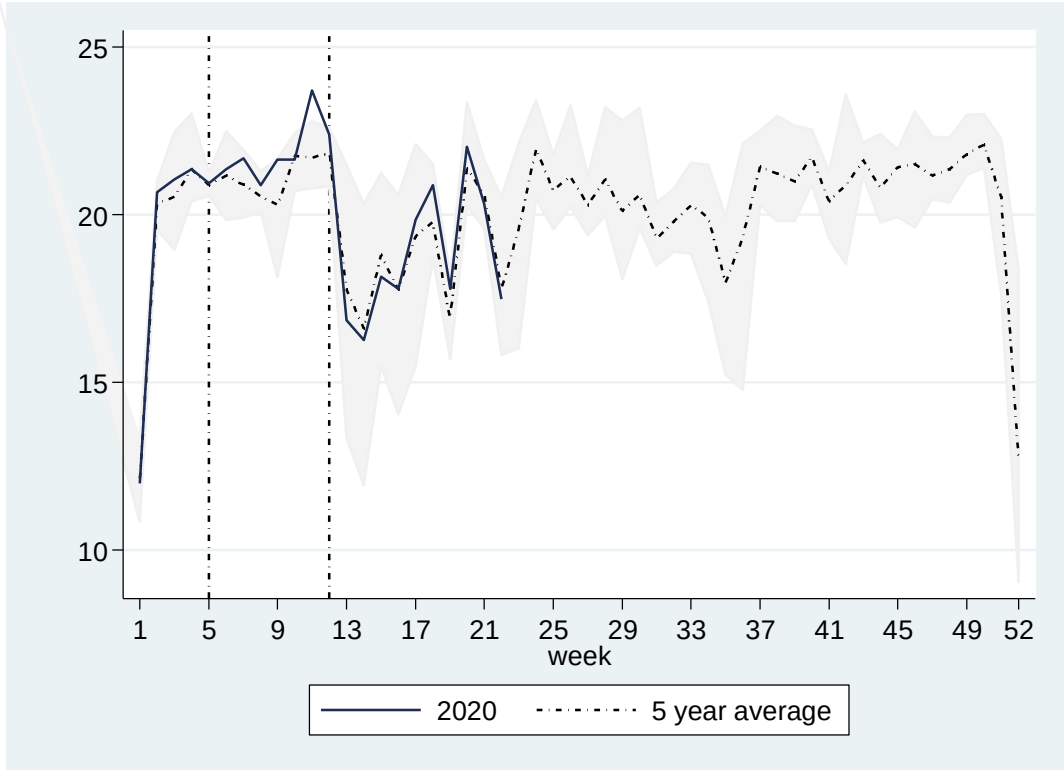
Appendix

Figure A1. In Work and Working Fewer Hours



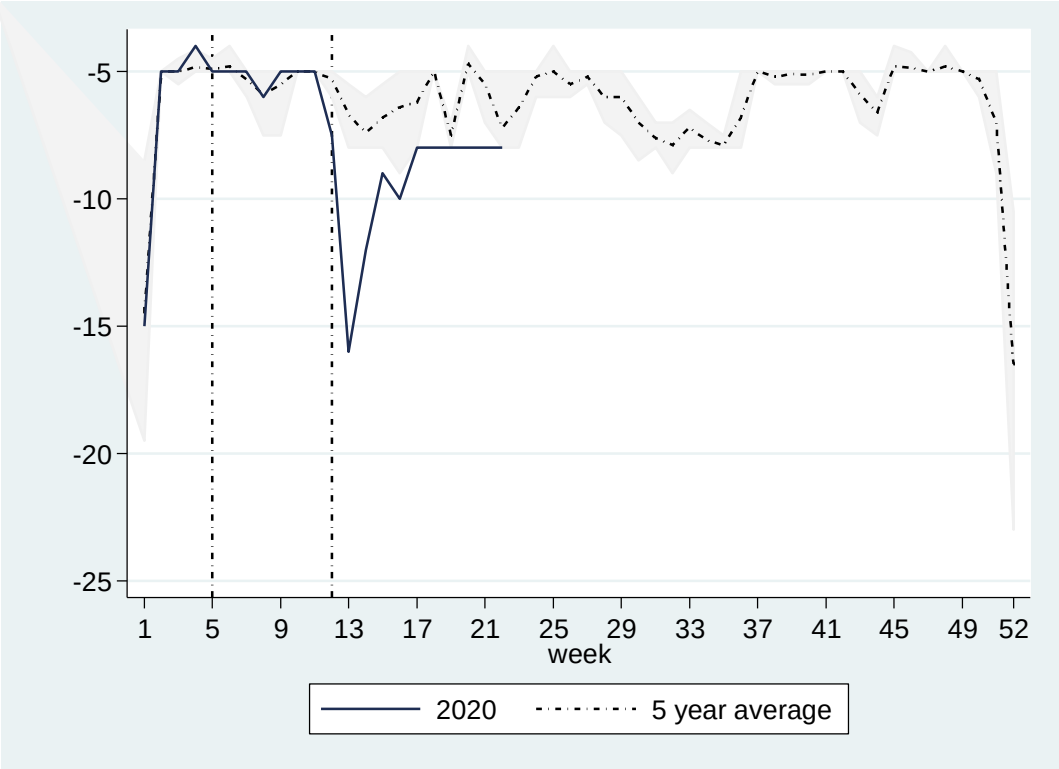
Source: LFS author calculations

Figure A2. In Work and Working More Hours



Source: LFS author calculations

Figure A3. Median Fewer Hours of those Working Fewer Hours



Source: LFS author calculations

Data Appendix

All data used in this paper are taken from the UK LFS 2020 q1, the UK LFS March_May 2020 and the Annual Population Survey for 2015-2019

The variable definitions used (with names of the LFS variables in brackets) are as follows:

Unemployment Rate: % of the labour force aged 16-64 who are not in work in the survey week and actively looking for work on ILO/OECD definition (***inecaca***)

Employment Rate: % of the labour force aged 16-64 who are in work in the survey week on ILO/OECD definition (***inecaca***)

Real Weekly Wage: Gross weekly wage (***Grsswk***) deflated by Retail Prices Index for month in which the survey takes place

Ill: % absent from work due to illness in survey week (***illwrk=1***)

Away: % of employed who report being in work but away from workplace (***jbaway***) in survey week

Fewer: % of working employed (***wrking=1***) who report fewer hours than usual (***tothrs<totus***)

Fewer Hours: difference between usual working hours (with overtime if applicable) and actual hours worked in survey week (***totus-tothrs if Fewer=1***)

More: % of working employed (***wrking=1***) who report fewer hours than usual (***tothrs>totus***)

Hired: Job tenure of 1 month or less derived using difference between interview date and length of job tenure (***refwkm, refwkyr, conmpy, consey and conmon***)

Layoff: Individual dismissed, made redundant, taken voluntary redundancy or temporary job ended in last three months (**redylft3**)

Quit: anyone who left work because of resignation, health, retirement, for education purposes, family reasons or other (**redylft3**)